

FIG. 1A

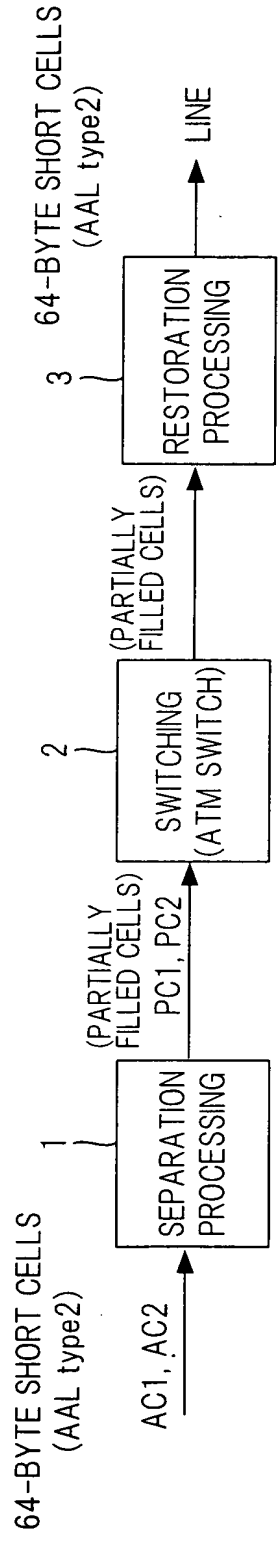
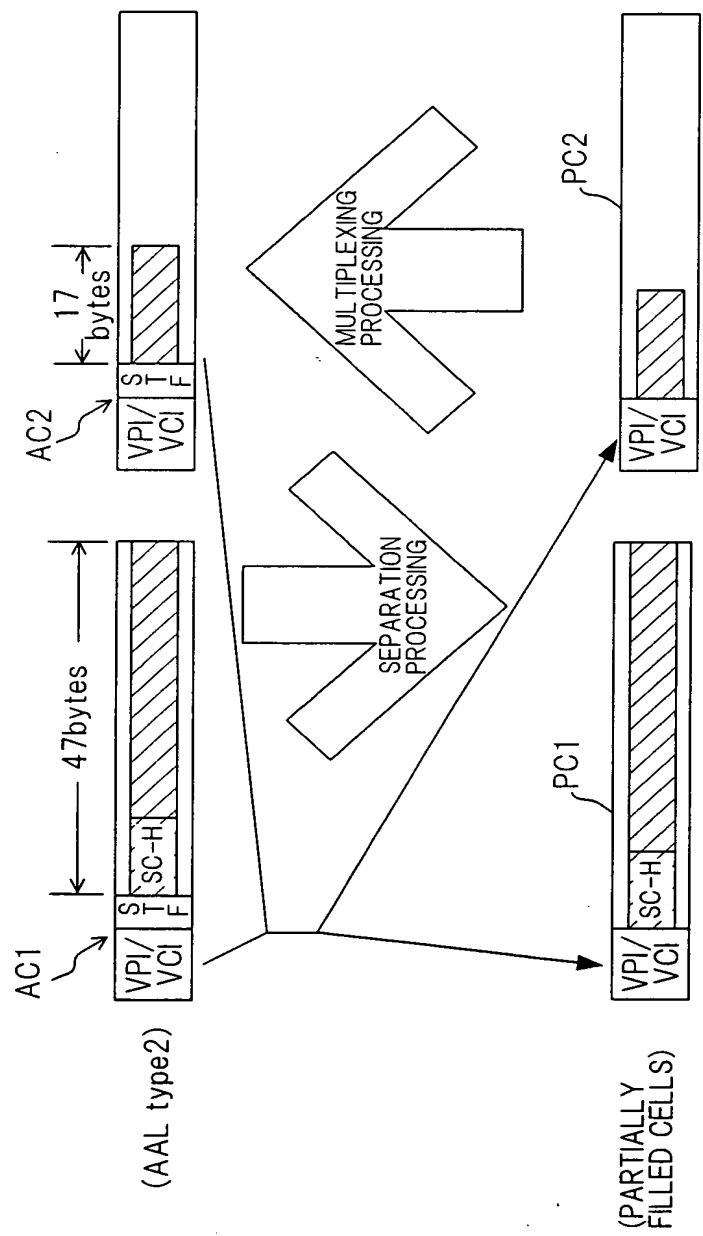


FIG. 1B



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FIG. 2

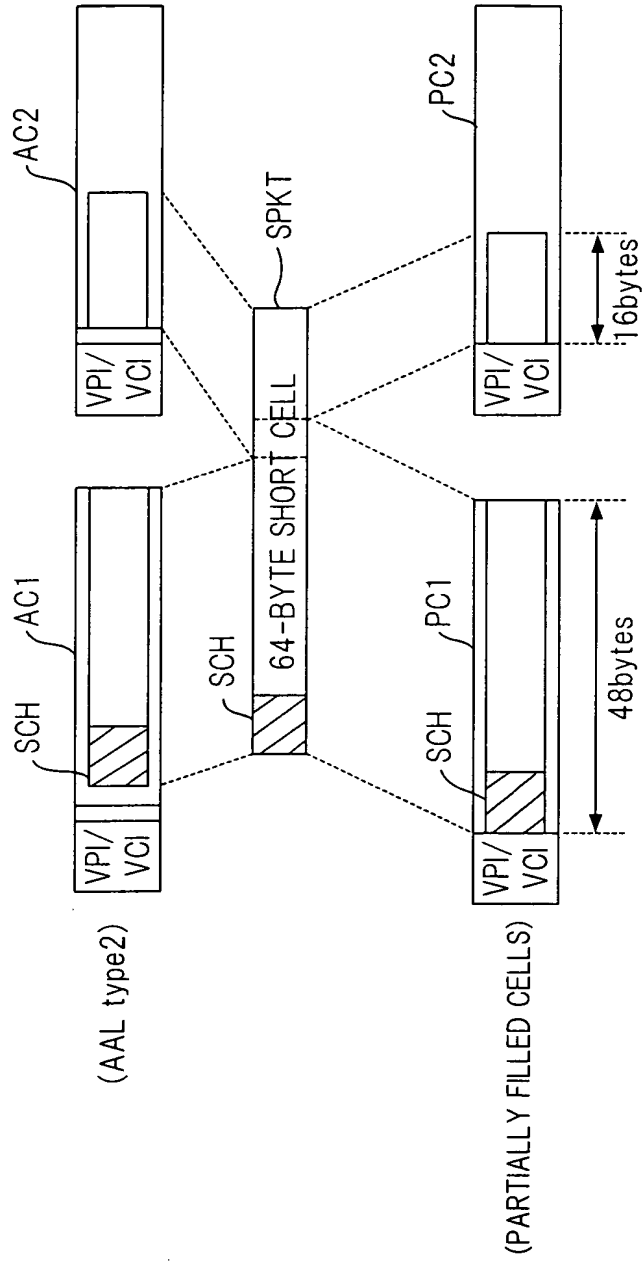
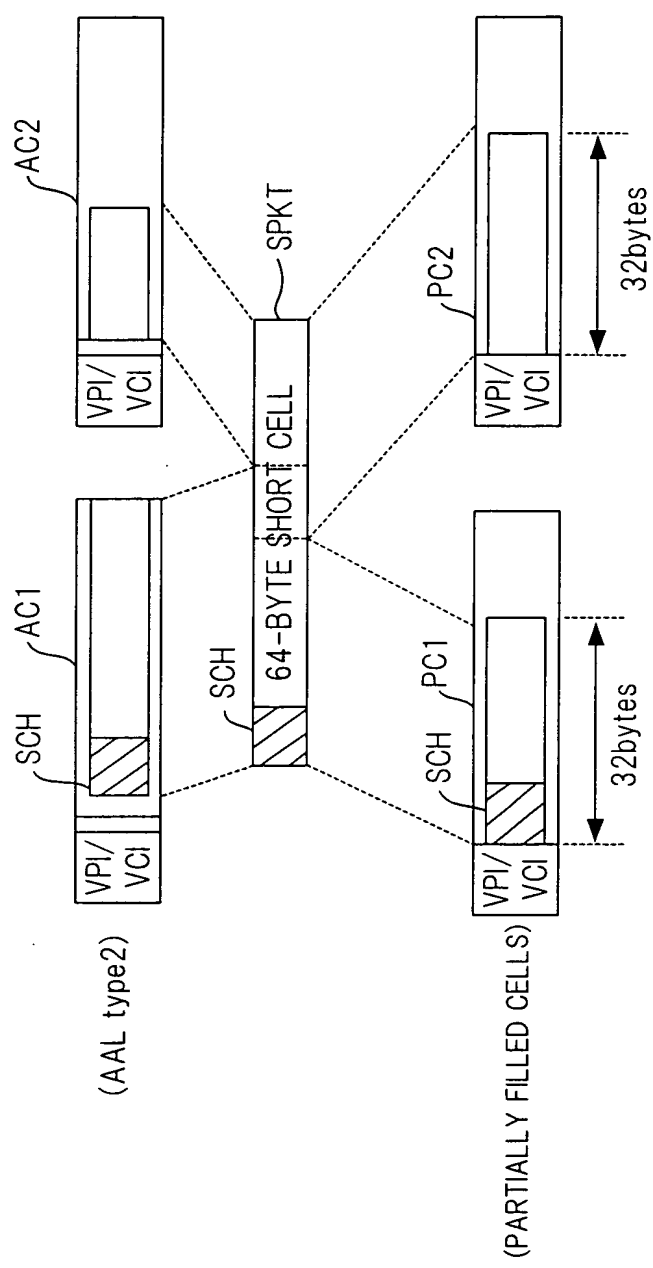


FIG. 3



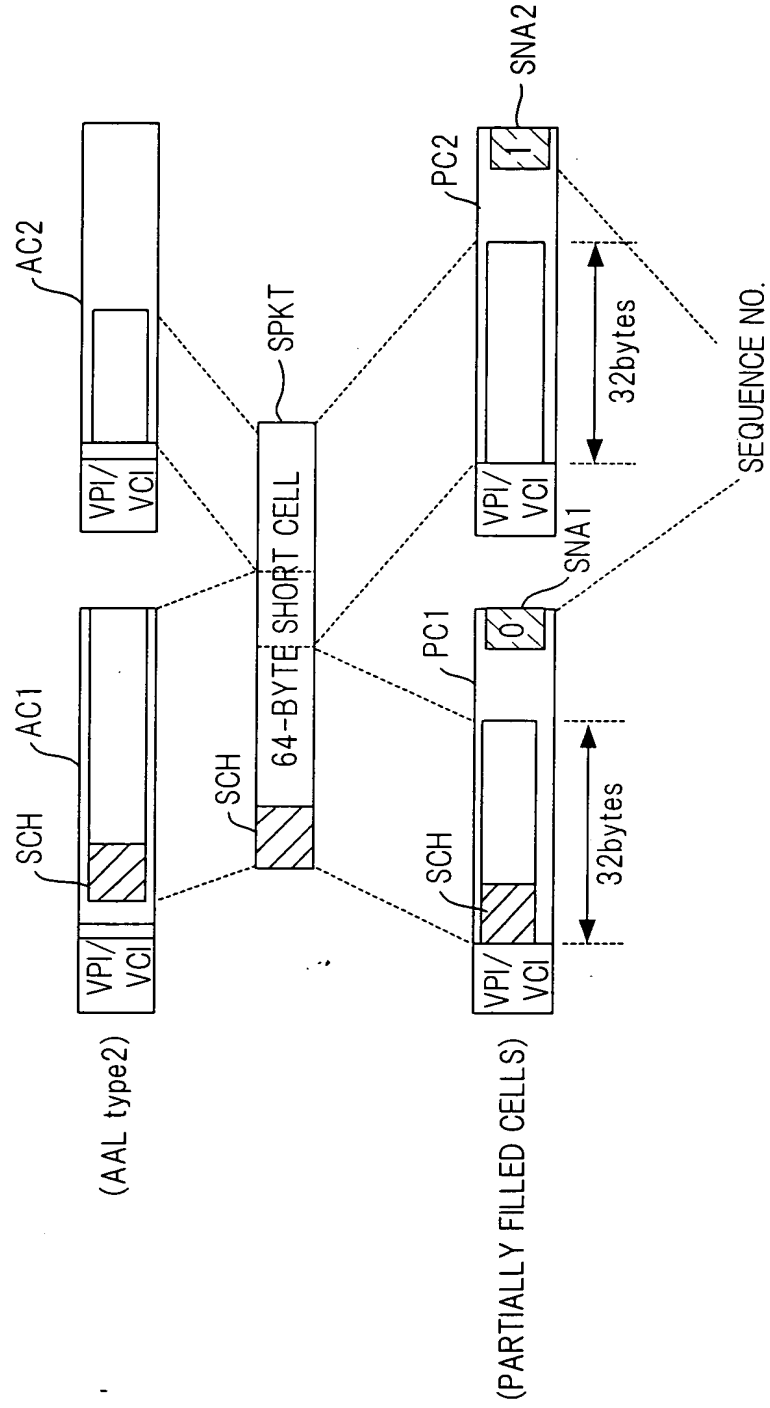
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**FIG. 4**

LENGTH OF SHORT PACKET (byte)	LI [ (LENGTH OF SHORT PACKET) - 4]	NUMBER OF BYTES OF FIRST CELL B1	NUMBER OF BYTES OF SECOND CELL B2
4	0	4	0
5	1	5	0
⋮	⋮	⋮	0
47	43	47	0
48	44	48	0
49	45	24	25
50	46	25	25
51	47	25	26
52	48	26	26
53	49	26	27
54	50	27	27
55	51	27	28
56	52	28	28
57	53	28	29
58	54	29	29
59	55	29	30
60	56	30	30
61	57	30	31
62	58	31	31
63	59	31	32
64	60	32	32
65	61	32	33
66	62	33	33
67	63	33	34

FIG. 5





**FIG. 7**

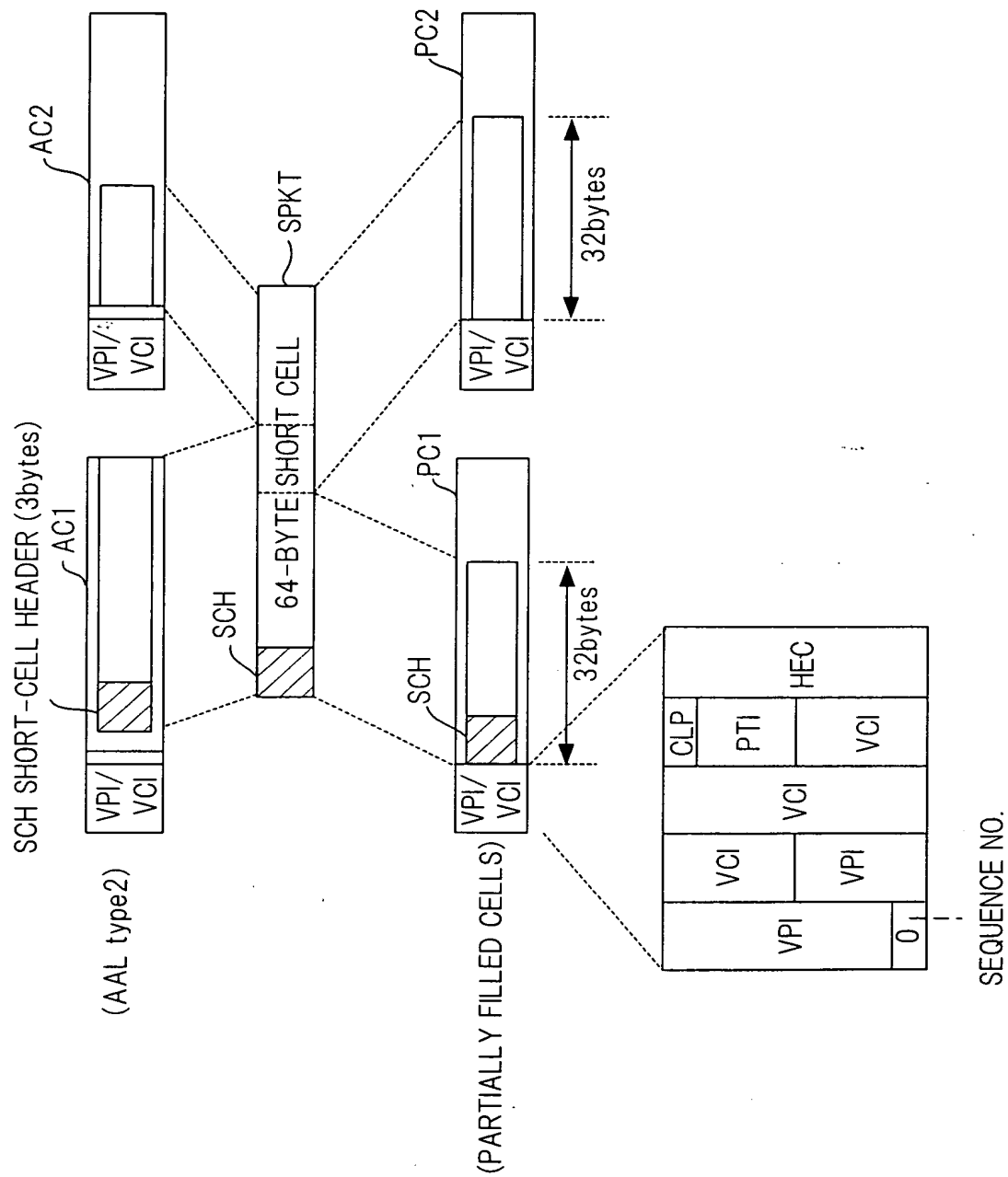
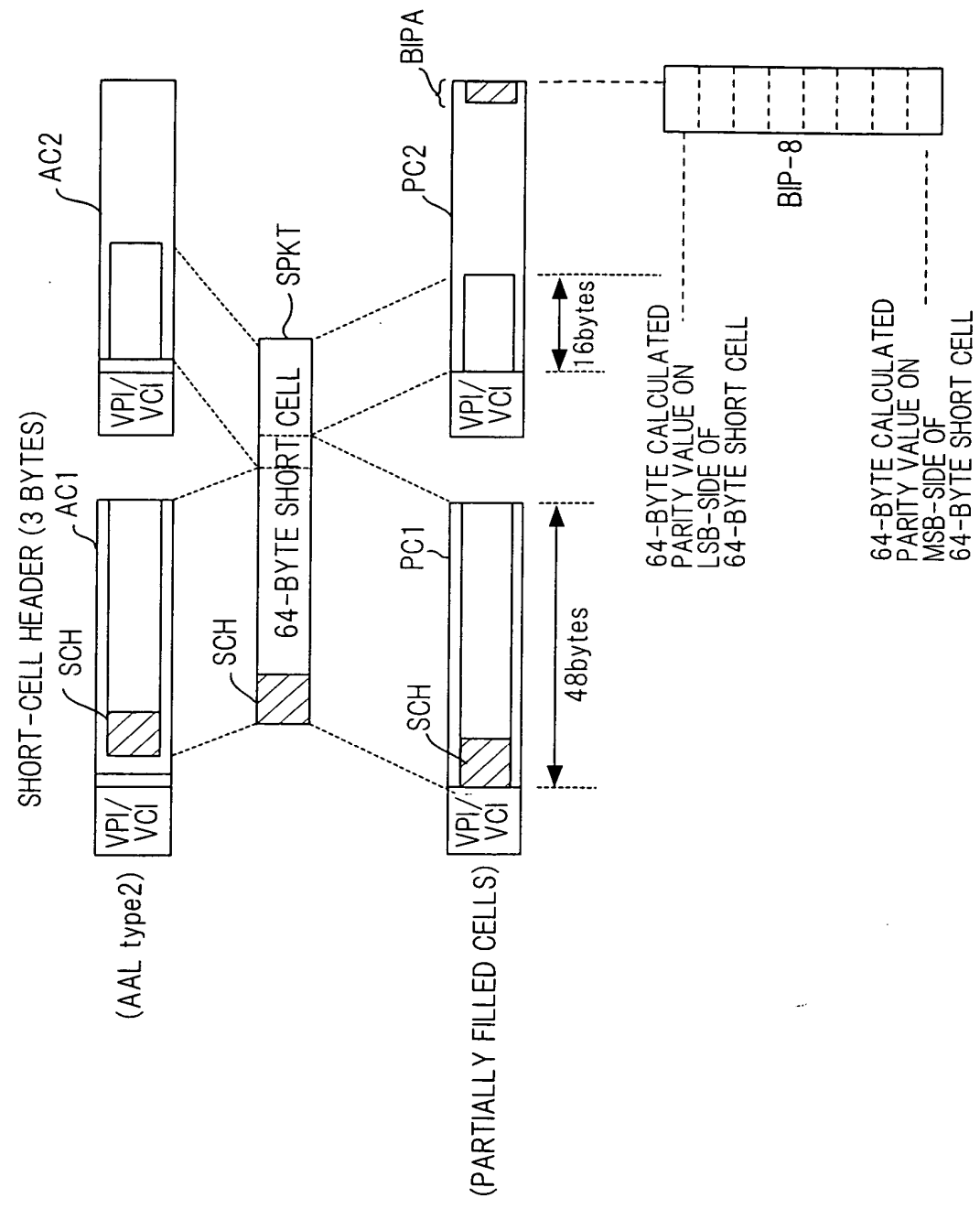


FIG. 8

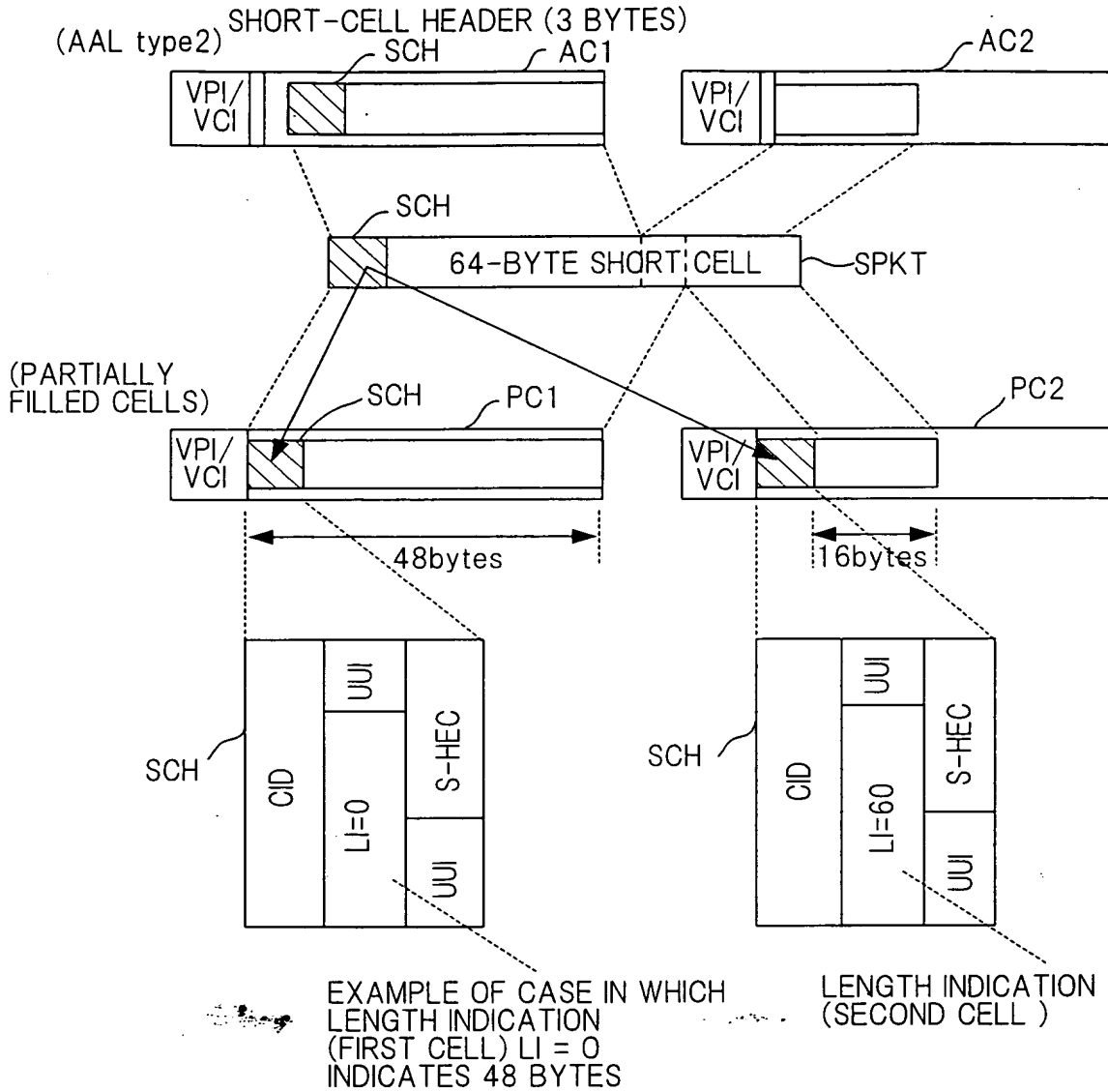




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FIG. 9



APPROVED	0.3. FIG.	
BY	CLASS	SUBCLASS
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*FIG. 10*

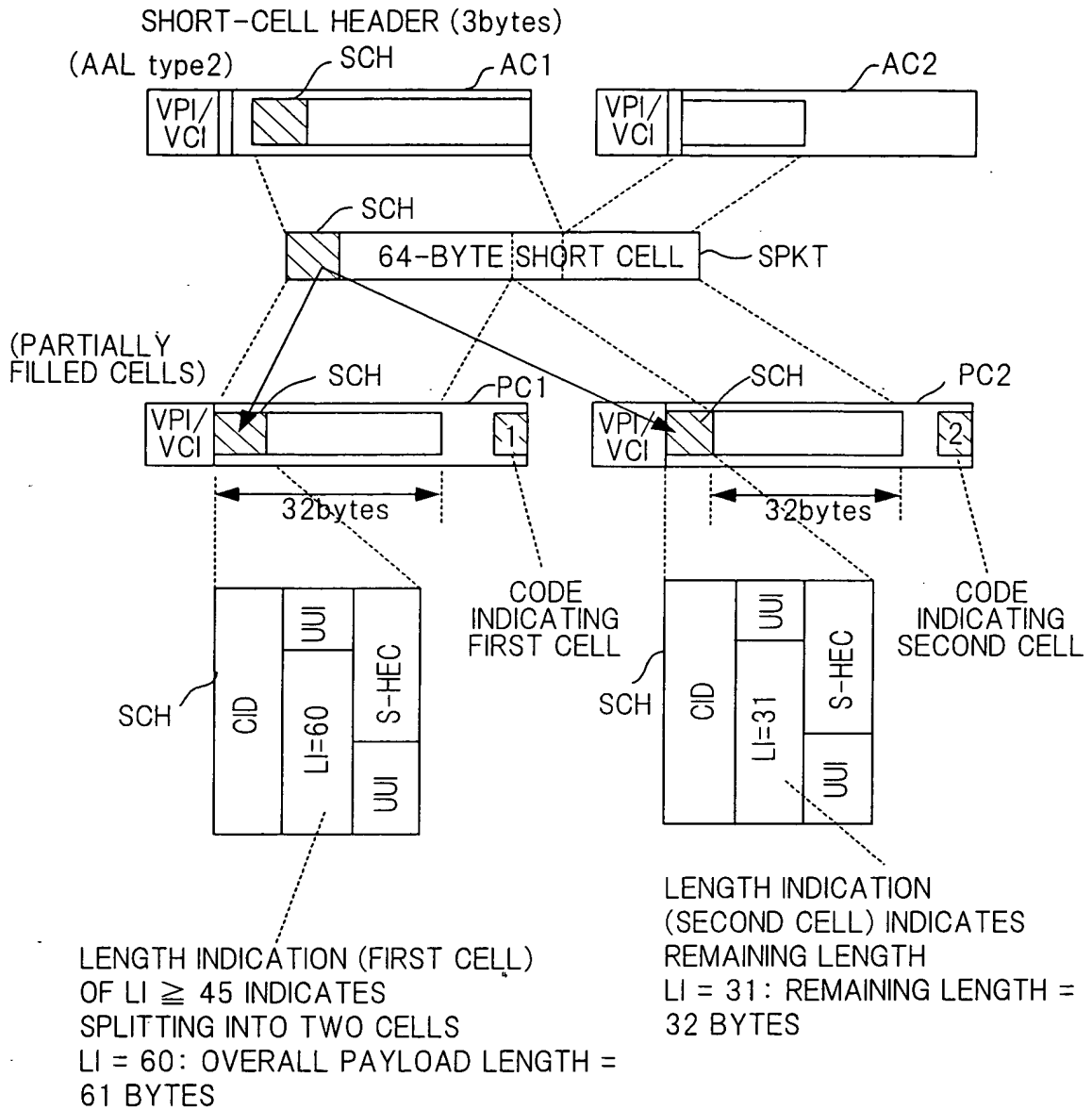
LENGTH (BYTES) OF ARRIVING SHORT PACKET	ARRIVING CELL LI (= LENGTH - 4 )	SIGNIFICANT -DATA LENGTH OF FIRST CELL	FIRST-CELL LI (BINARY NOTATION)	SIGNIFICANT -DATA LENGTH OF SECOND CELL	SECOND- CELL LI (BINARY NOTATION)
4 (USE PROHIBITED)	0	-	- (USE PROHIBITED)	-	-
5	1	5	000001	-	-
6	2	6	000010	-	-
7	3	7	000011	-	-
8	4	8	000100	-	-
9	5	9	000101	-	-
10	6	10	000110	-	-
11	7	11	000111	-	-
12	8	12	001000	-	-
13	9	13	001001	-	-
14	10	14	001010	-	-
15	11	15	001011	-	-
16	12	16	001100	-	-
17	13	17	001101	-	-
18	14	18	001110	-	-
19	15	19	001111	-	-
20	16	20	010000	-	-
21	17	21	010001	-	-
22	18	22	010010	-	-
23	19	23	010011	-	-
24	20	24	010100	-	-
25	21	25	010101	-	-
26	22	26	010110	-	-
27	23	27	010111	-	-
28	24	28	011000	-	-
29	25	29	011001	-	-
30	26	30	011010	-	-
31	27	31	011011	-	-
32	28	32	011100	-	-
33	29	33	011101	-	-
34	30	34	011110	-	-
35	31	35	011111	-	-
36	32	36	100000	-	-
37	33	37	100001	-	-
38	34	38	100010	-	-
39	35	39	100011	-	-
40	36	40	100100	-	-

00000000000000000000000000000000

LENGTH (BYTES) OF ARRIVING SHORT PACKET	ARRIVING CELL LI (= LENGTH - 4 )	SIGNIFICANT -DATA LENGTH OF FIRST CELL	FIRST-CELL LI (BINARY NOTATION)	SIGNIFICANT -DATA LENGTH OF SECOND CELL	SECOND- CELL LI (BINARY NOTATION)
41	37	41	100101	-	-
42	38	42	100110	-	-
43	39	43	100111	-	-
44	40	44	101000	-	-
45	41	45	101001	-	-
46	42	46	101010	-	-
47	43	47	101011	-	-
48	44	48	101100	-	-
49	45	48	000000	1	101101
50	46	48	000000	2	101110
51	47	48	000000	3	101111
52	48	48	000000	4	110000
53	49	48	000000	5	110001
54	50	48	000000	6	110010
55	51	48	000000	7	110011
56	52	48	000000	8	110100
57	53	48	000000	9	110101
58	54	48	000000	10	110110
59	55	48	000000	11	110111
60	56	48	000000	12	111000
61	57	48	000000	13	111001
62	58	48	000000	14	111010
63	59	48	000000	15	111011
64	60	48	000000	16	111100
65	61	48	000000	17	111101
66	62	48	000000	18	111110
67	63	48	000000	19	111111

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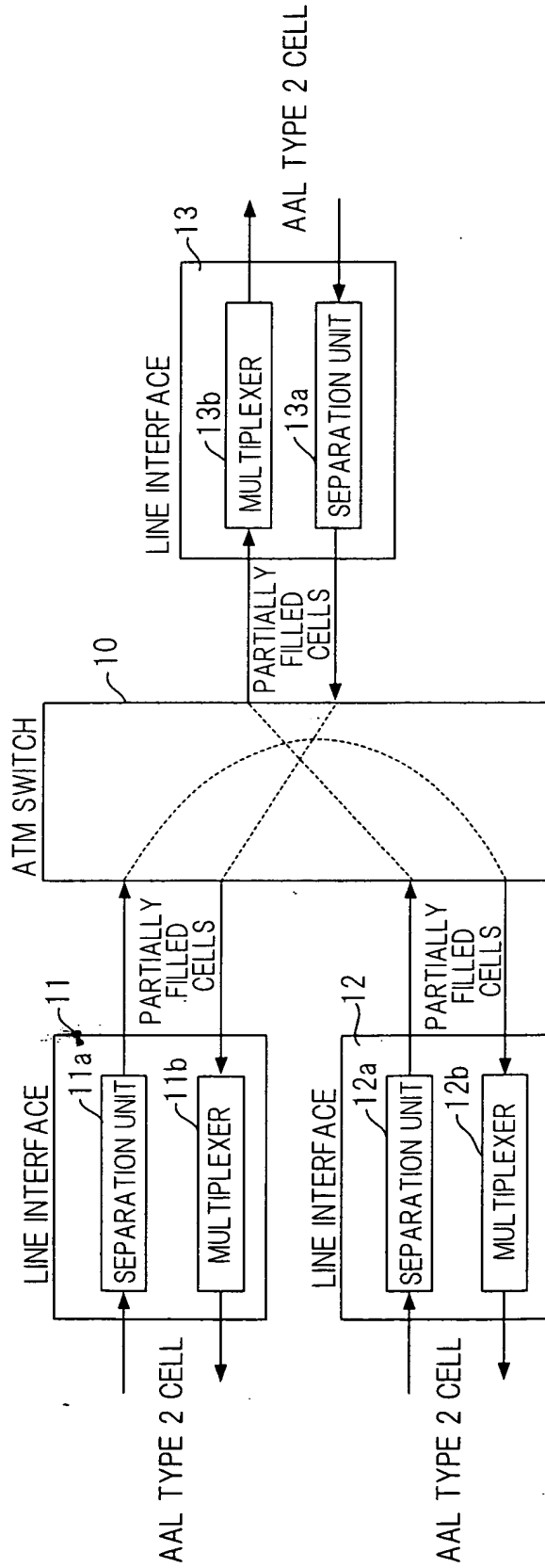
**FIG. 12**



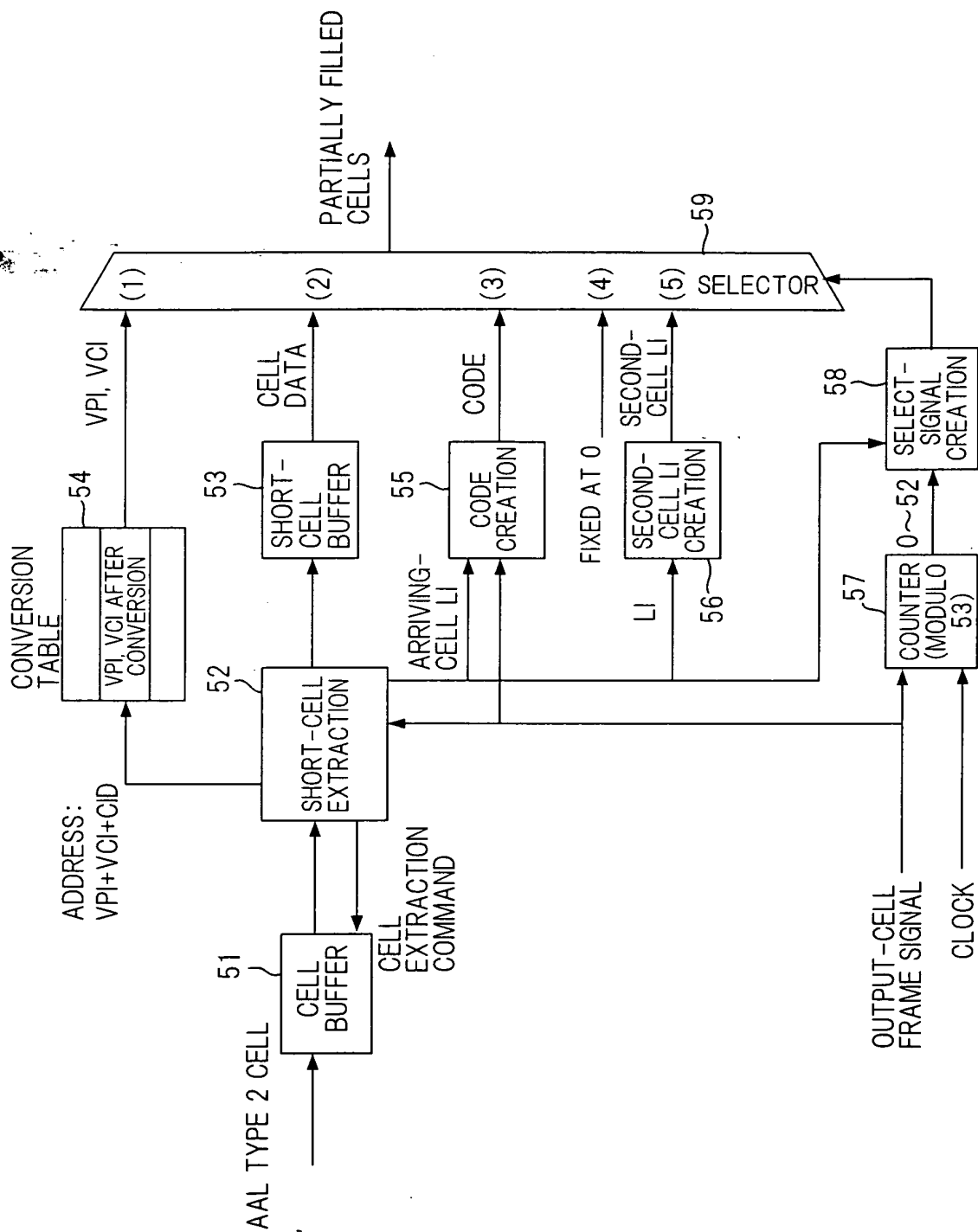


[illegible]

FIG. 15



**FIG. 16**





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## FIG. 17A

WHEN LI < 45 HOLDS

COUNT	SELECT SIGNAL
0~4	SELECT (1)
5~(LI+8)	SELECT (2)
(LI+9)~52	SELECT (4)

## FIG. 17B

WHEN LI > 44 HOLDS  
(WHEN FIRST CELL IS SENT)

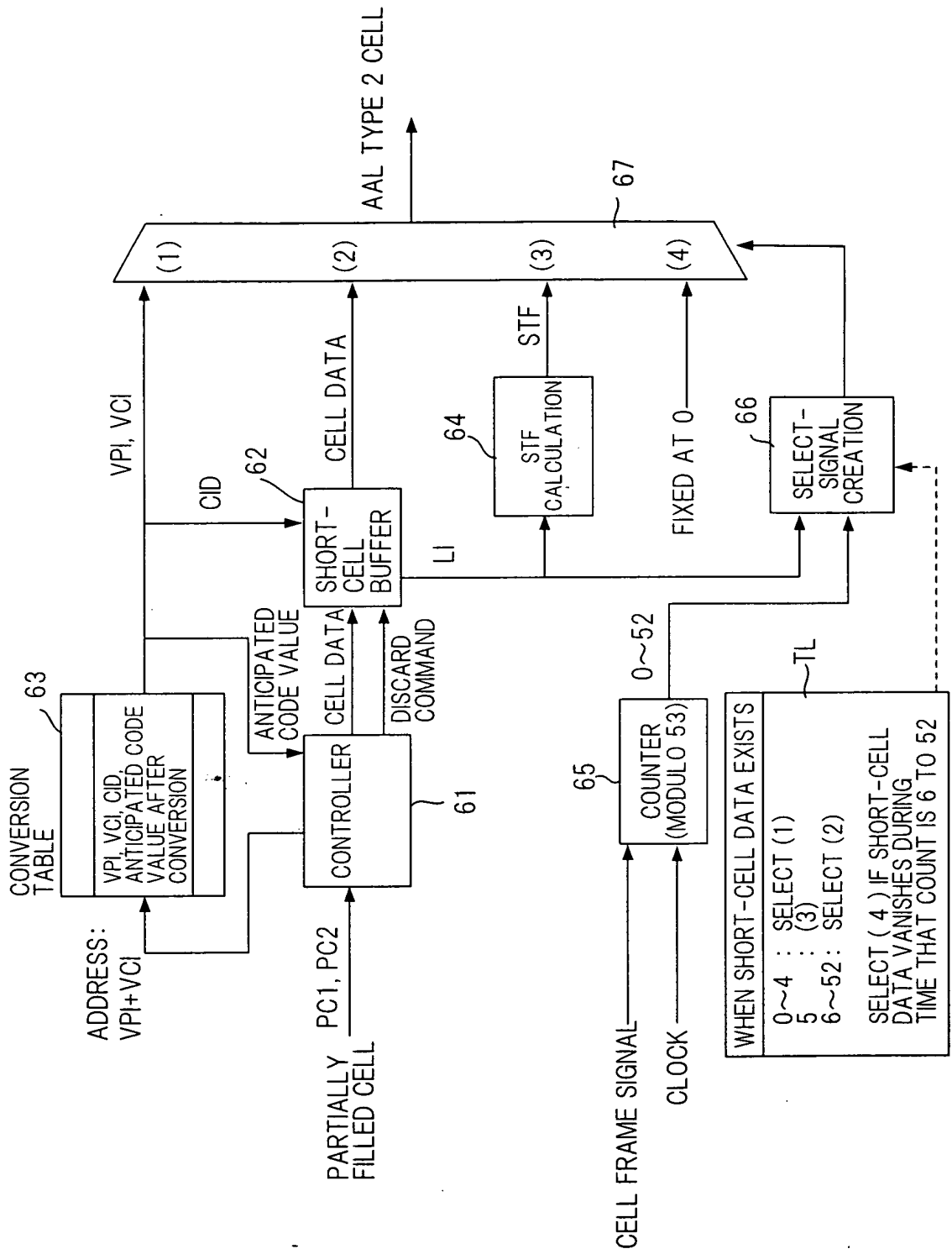
COUNT	SELECT SIGNAL
0~4	SELECT (1)
5~36	SELECT (2)
37~51	SELECT (4)
52	SELECT (3)

## FIG. 17C

WHEN LI > 44 HOLDS  
(WHEN SECOND CELL IS SENT)

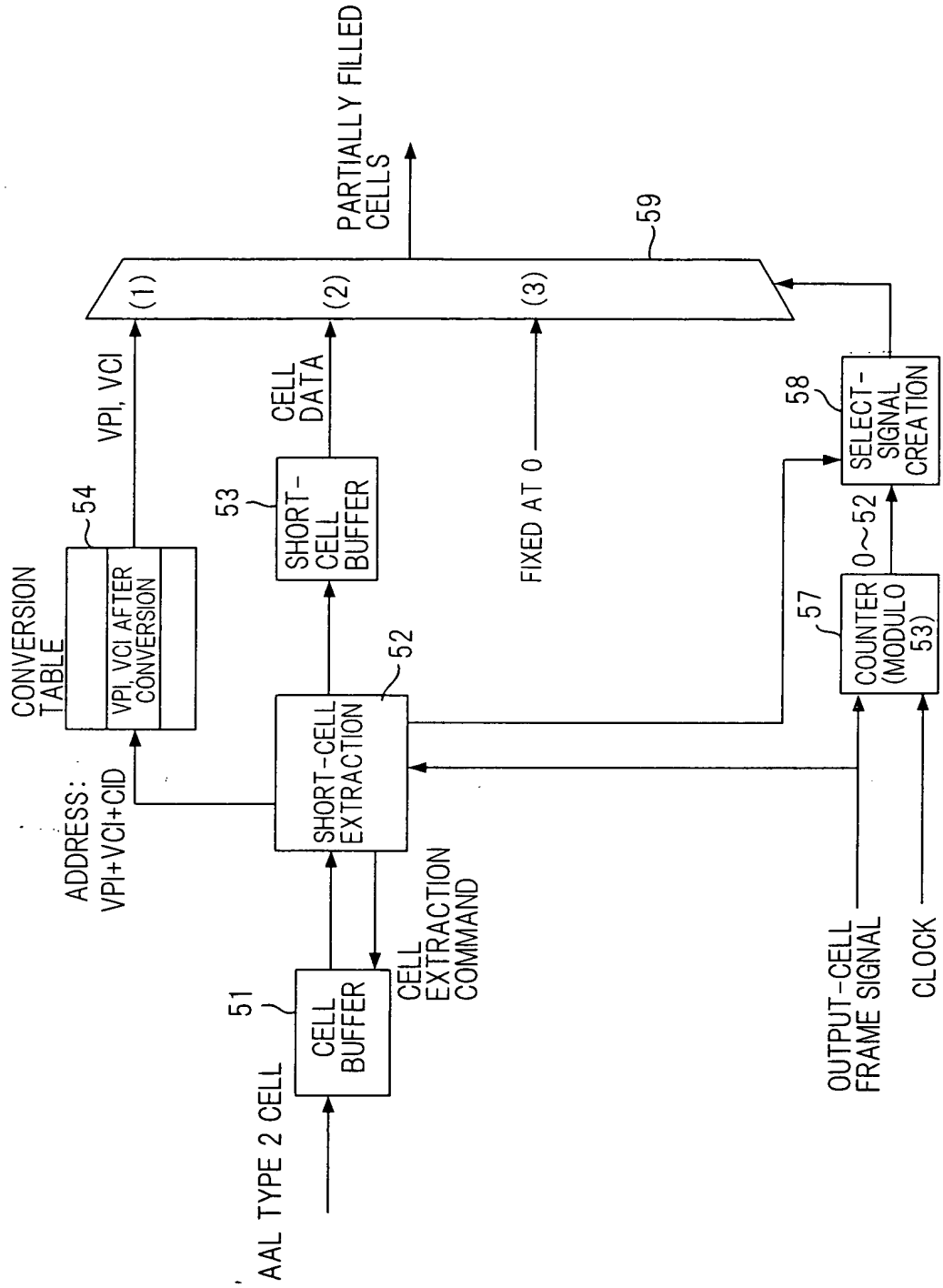
COUNT	SELECT SIGNAL
0~4	SELECT (1)
5	SELECT (4)
6	SELECT (5)
7	SELECT (4)
8~(LI-21)	SELECT (2)
(LI-21)+1~51	SELECT (4)
52	SELECT (3)

FIG. 18



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FIG. 19



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## FIG.20A

WHEN  $LI < 45$  HOLDS

COUNT	SELECT SIGNAL
0~4	SELECT (1)
5~(LI+8)	SELECT (2)
(LI+9)~52	SELECT (3)

## FIG.20B

WHEN  $LI > 44$  HOLDS  
(WHEN FIRST CELL IS SENT)

COUNT	SELECT SIGNAL
0~4	SELECT (1)
5~52	SELECT (2)

## FIG.20C

WHEN  $LI > 44$  HOLDS  
(WHEN SECOND CELL IS SENT)

COUNT	SELECT SIGNAL
0~4	SELECT (1)
5~(LI-40)	SELECT (2)
(LI-40)+1~51	SELECT (3)

0.3.72

FIG. 21

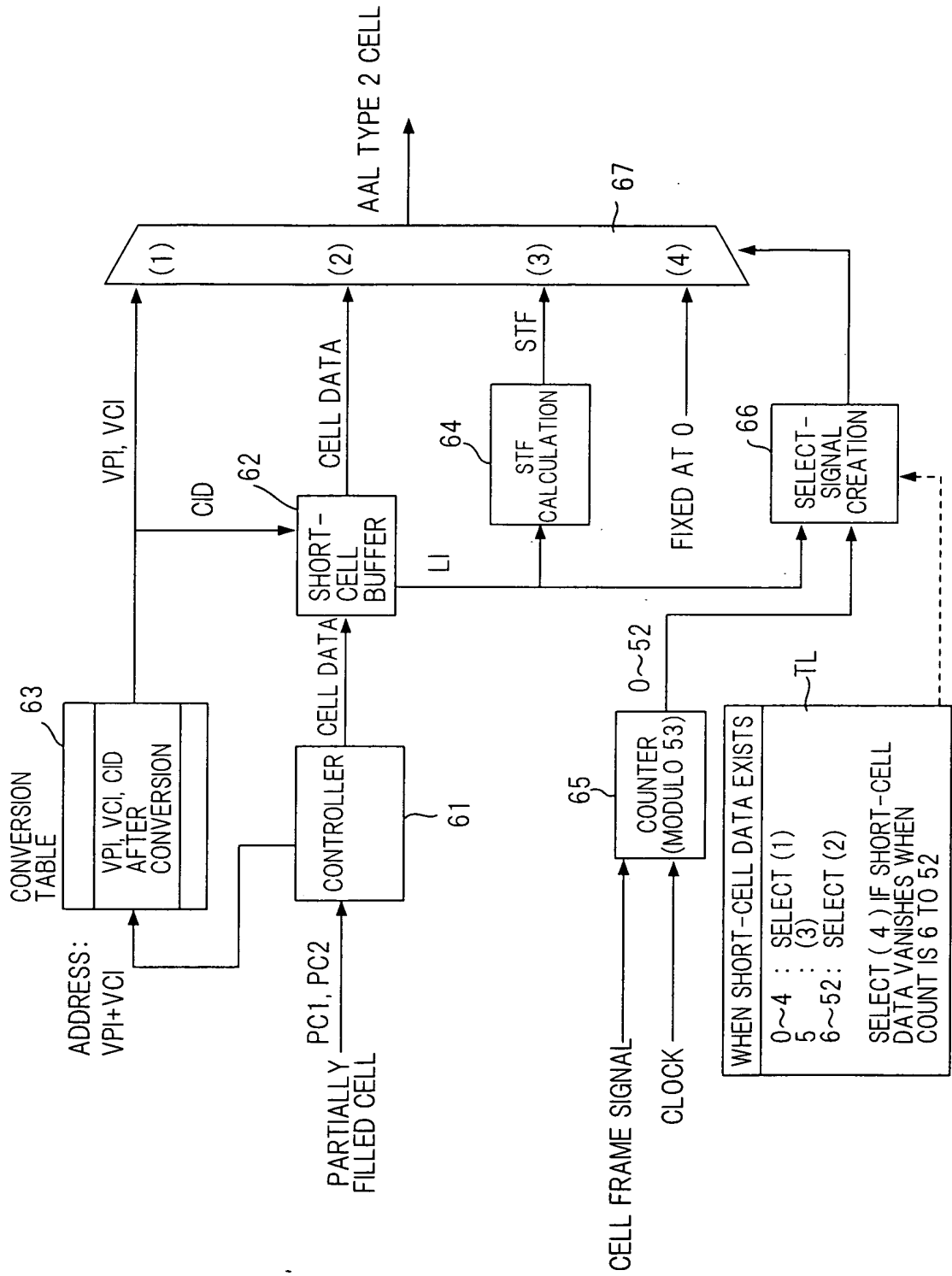
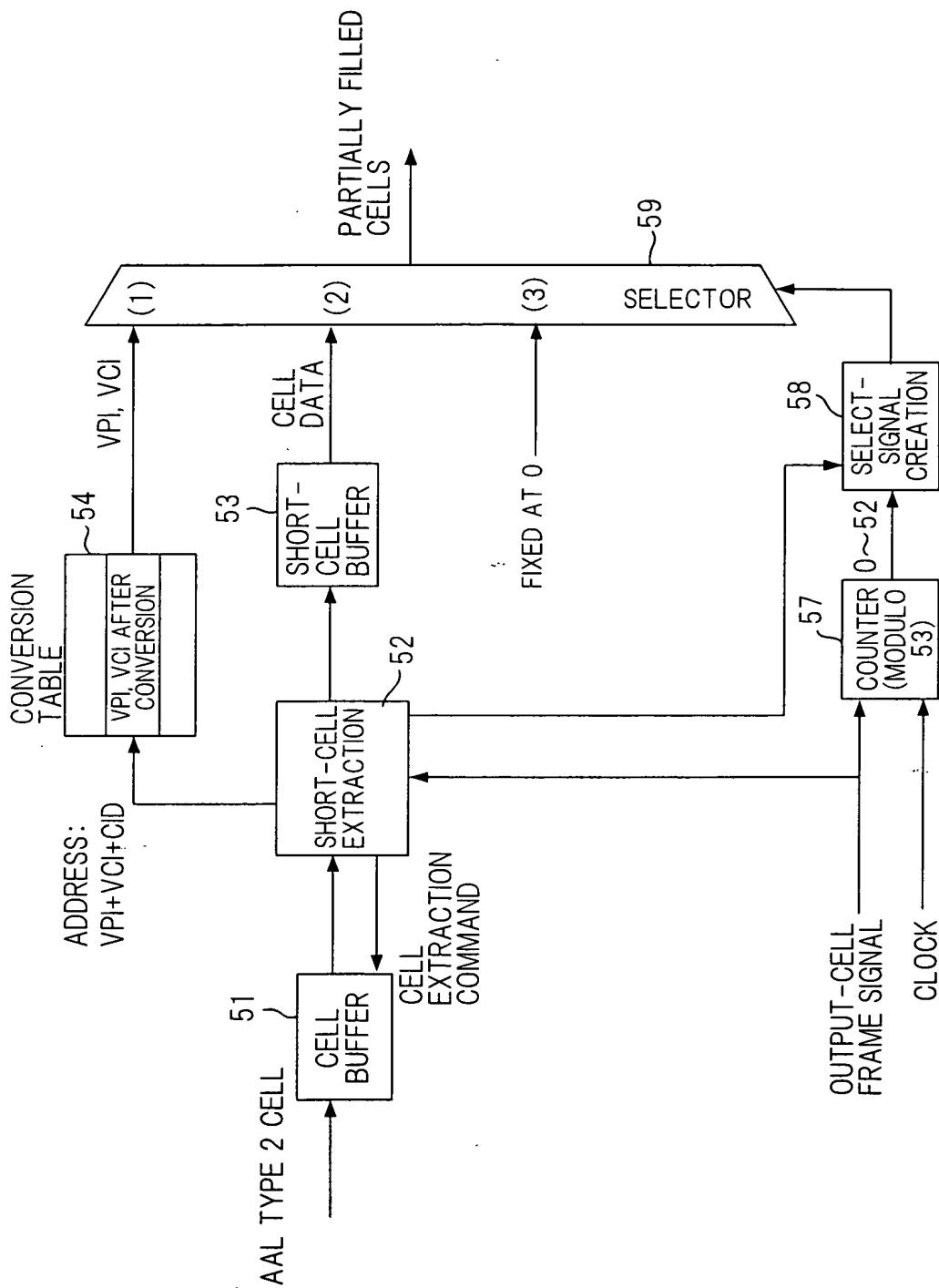


FIG. 22



APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
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## FIG. 23A

WHEN LI < 45 HOLDS

COUNT	SELECT SIGNAL
0~4	SELECT (1)
5~(LI+8)	SELECT (2)
(LI+9)~52	SELECT (3)

## FIG. 23B

WHEN LI > 44 HOLDS  
(WHEN FIRST CELL IS SENT)

COUNT	SELECT SIGNAL
0~4	SELECT (1)
5~(B1+4)	SELECT (2)
(B1+5)~52	SELECT (3)

## FIG. 23C

WHEN LI > 44 HOLDS  
(WHEN SECOND CELL IS SENT)

COUNT	SELECT SIGNAL
0~4	SELECT (1)
5~(B2+4)	SELECT (2)
(B2+5)~52	SELECT (3)

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FIG. 24

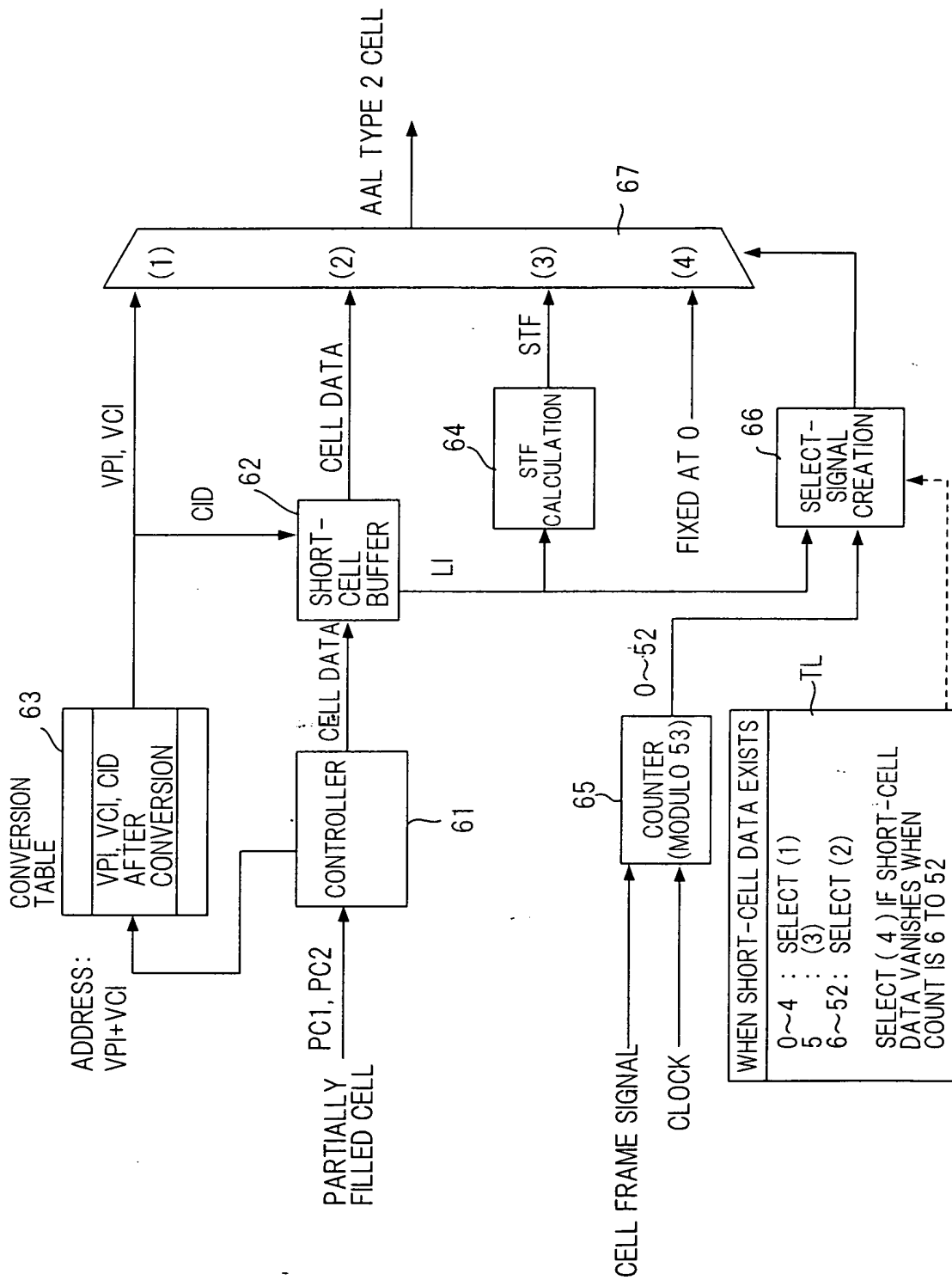
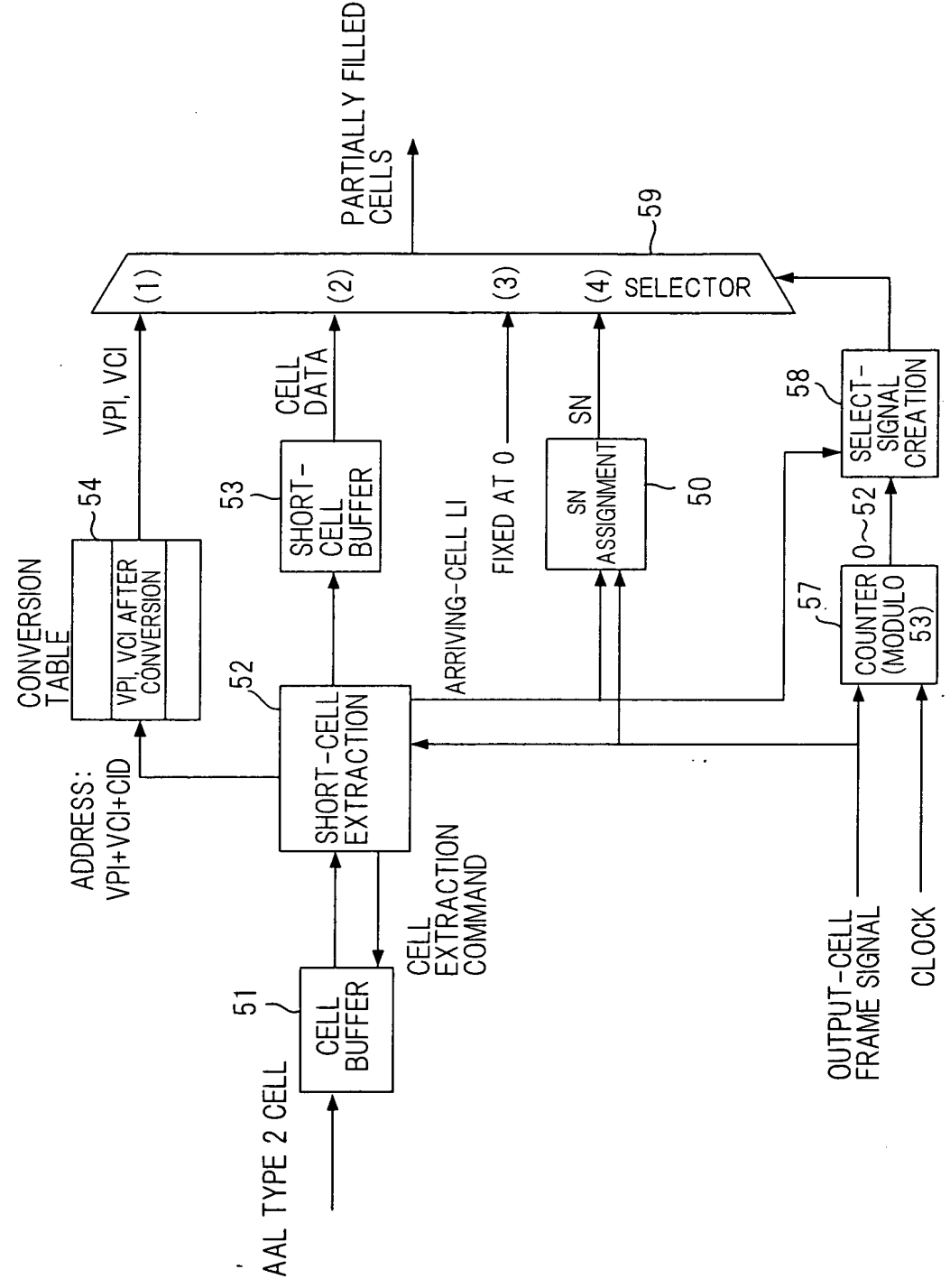




FIG.25



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FIG.26A

WHEN LI < 45 HOLDS

COUNT	SELECT SIGNAL
0~4	SELECT (1)
5~(LI+8)	SELECT (2)
(LI+9)~52	SELECT (3)

FIG.26B

WHEN LI > 44 HOLDS  
(WHEN FIRST CELL IS SENT)

COUNT	SELECT SIGNAL
0~4	SELECT (1)
5~(B1+4)	SELECT (2)
(B1+5)~51	SELECT (3)
52	SELECT (4)

FIG.26C

WHEN LI > 44 HOLDS  
(WHEN SECOND CELL IS SENT)

COUNT	SELECT SIGNAL
0~4	SELECT (1)
5~(B2+4)	SELECT (2)
(B2+5)~51	SELECT (3)
52	SELECT (4)

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The diagram illustrates a cell transfer control system for AAL type 2 cells. The system components and their interactions are as follows:

- Conversion Table (63):** Contains VPI, VCI, CID, and ANTICIPATED SN VALUE. It is accessed via ADDRESS: VPI+VCI.
- Controller (61):** Receives PARTIALLY FILLED CELL (PC1, PC2) and outputs CELL DATA to the SHORT-CELL BUFFER (62). It also receives a DISCARD COMMAND.
- Short-Cell Buffer (62):** Receives CELL DATA from the controller and outputs it to the STF CALCULATION block (64). It also receives a SELECT-SIGNAL from block 66.
- STF Calculation (64):** Receives CELL DATA from the buffer and outputs an STF signal.
- Counter (65):** Receives the STF signal and outputs a value (0~52) to the SELECT-SIGNAL CREATION block (66).
- Select-Signal Creation (66):** Receives the STF signal and the counter output, and outputs a SELECT-SIGNAL to the SHORT-CELL BUFFER (62).
- Output:** The SHORT-CELL BUFFER (62) outputs the final CELL DATA to the AAL TYPE 2 CELL output.

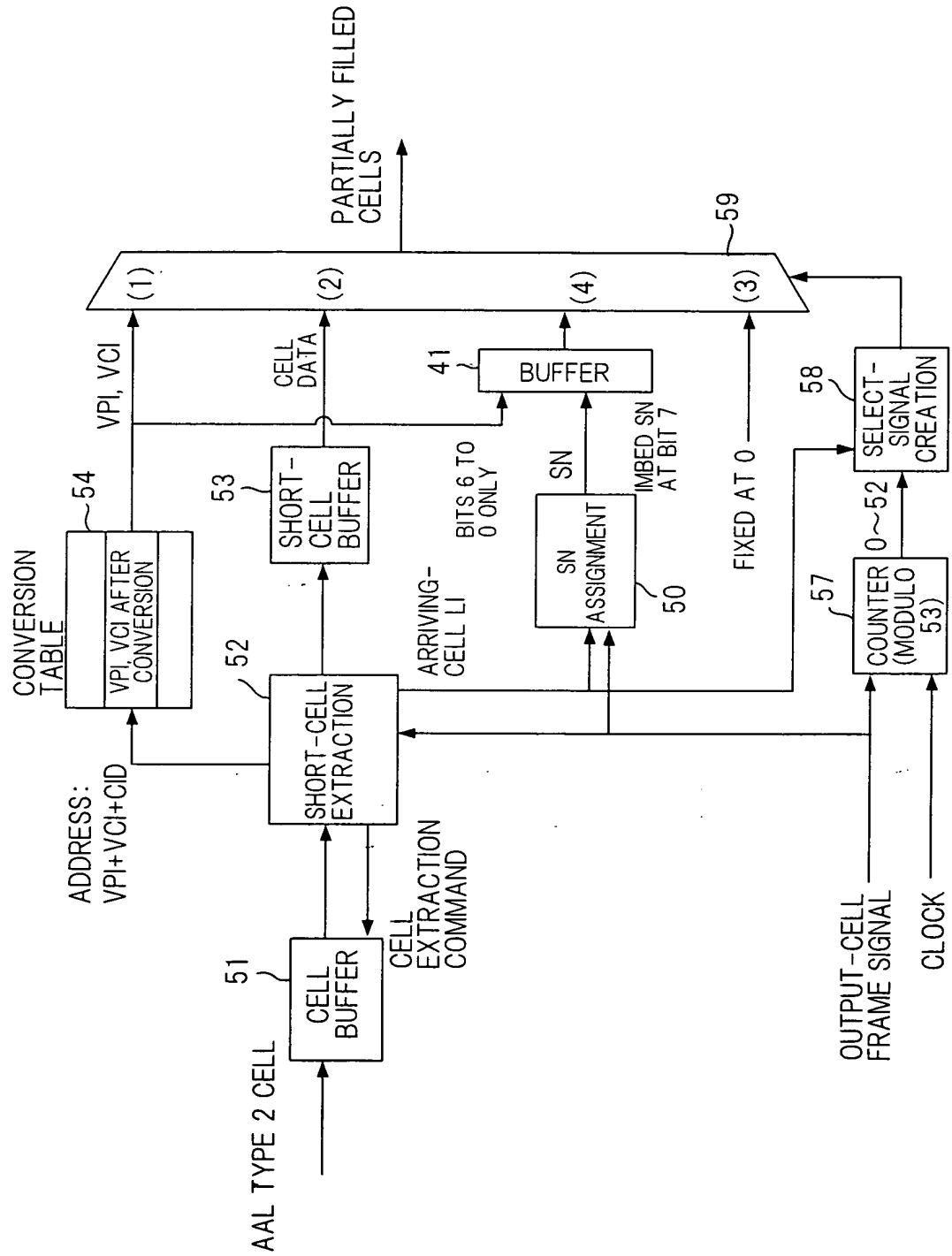
AAL TYP







FIG. 31



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BY	CLASS	SUBCLASS
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## FIG. 32A

WHEN LI < 45 HOLDS

COUNT	SELECT SIGNAL
0~4	SELECT (1)
5~(LI+8)	SELECT (2)
(LI+9)~52	SELECT (3)

## FIG. 32B

WHEN LI > 44 HOLDS  
(WHEN FIRST CELL IS SENT)

COUNT	SELECT SIGNAL
0	SELECT (4)
1~4	SELECT (1)
5~(B1+4)	SELECT (2)
(B1+5)~52	SELECT (3)

## FIG. 32C

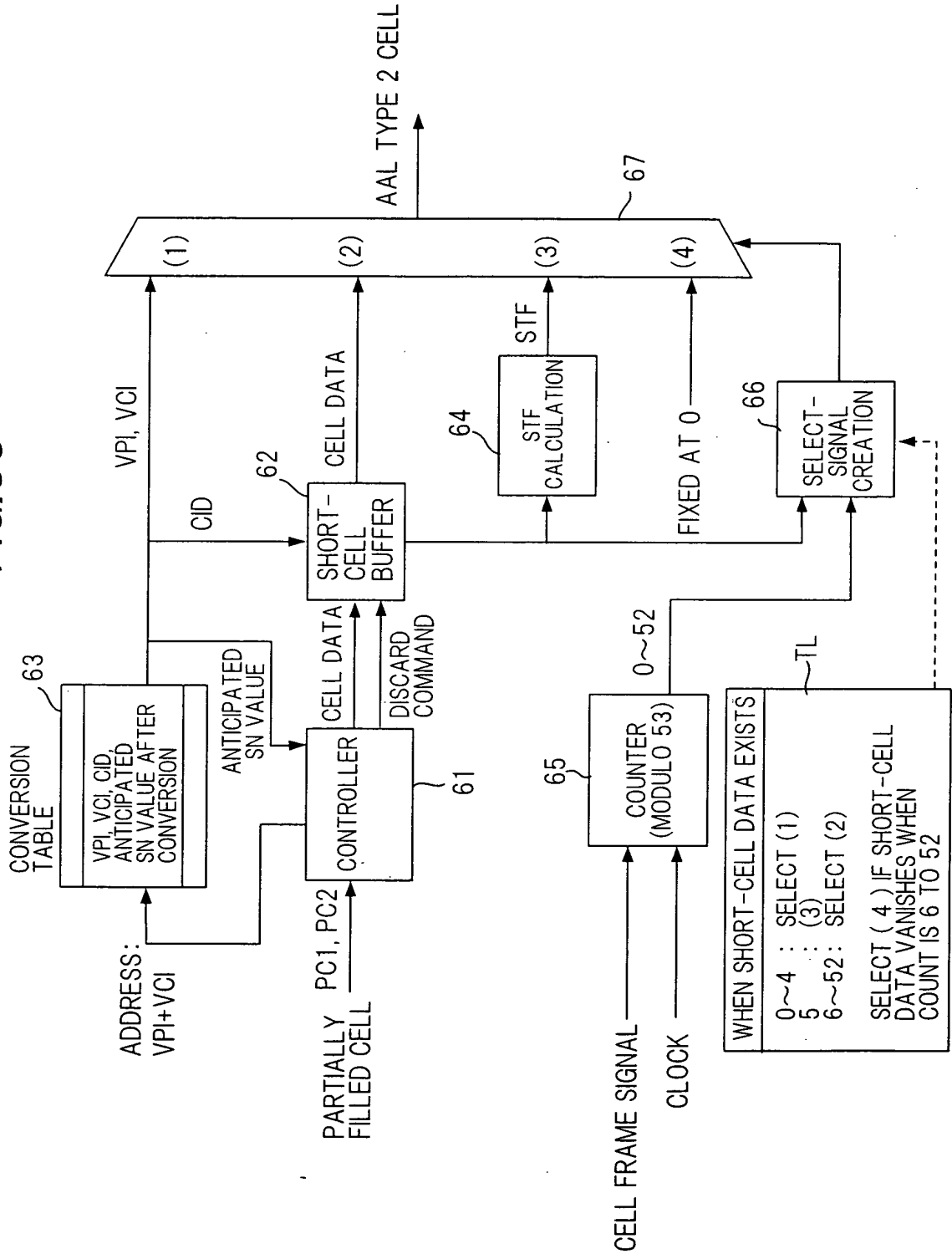
WHEN LI > 44 HOLDS  
(WHEN SECOND CELL IS SENT)

COUNT	SELECT SIGNAL
0	SELECT (4)
1~4	SELECT (1)
5~(B2+4)	SELECT (2)
(B2+5)~52	SELECT (3)

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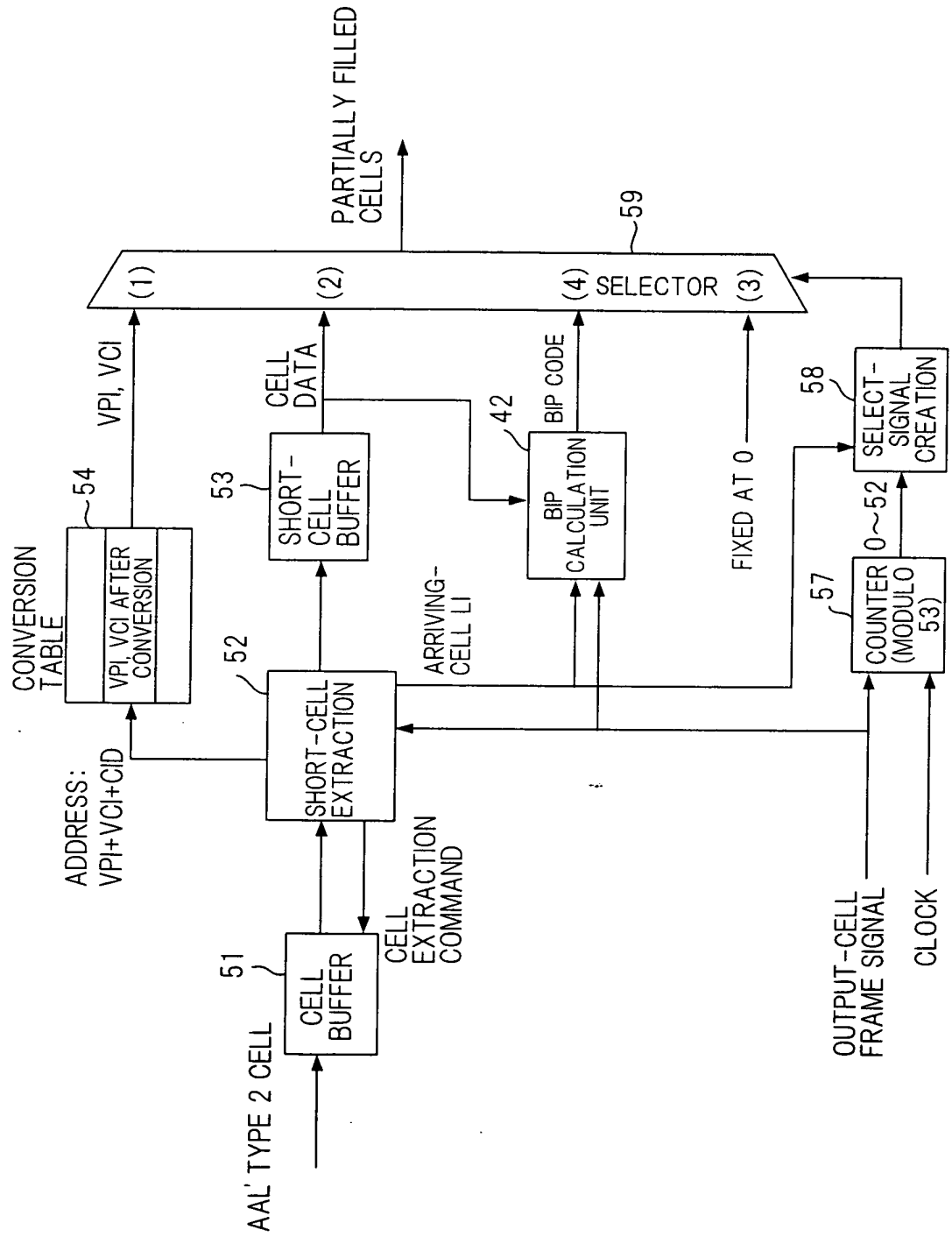
FIG. 33



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FIG. 34





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BY	CLASS	SUBCLASS
DRAFTSMAN		

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FIG. 36

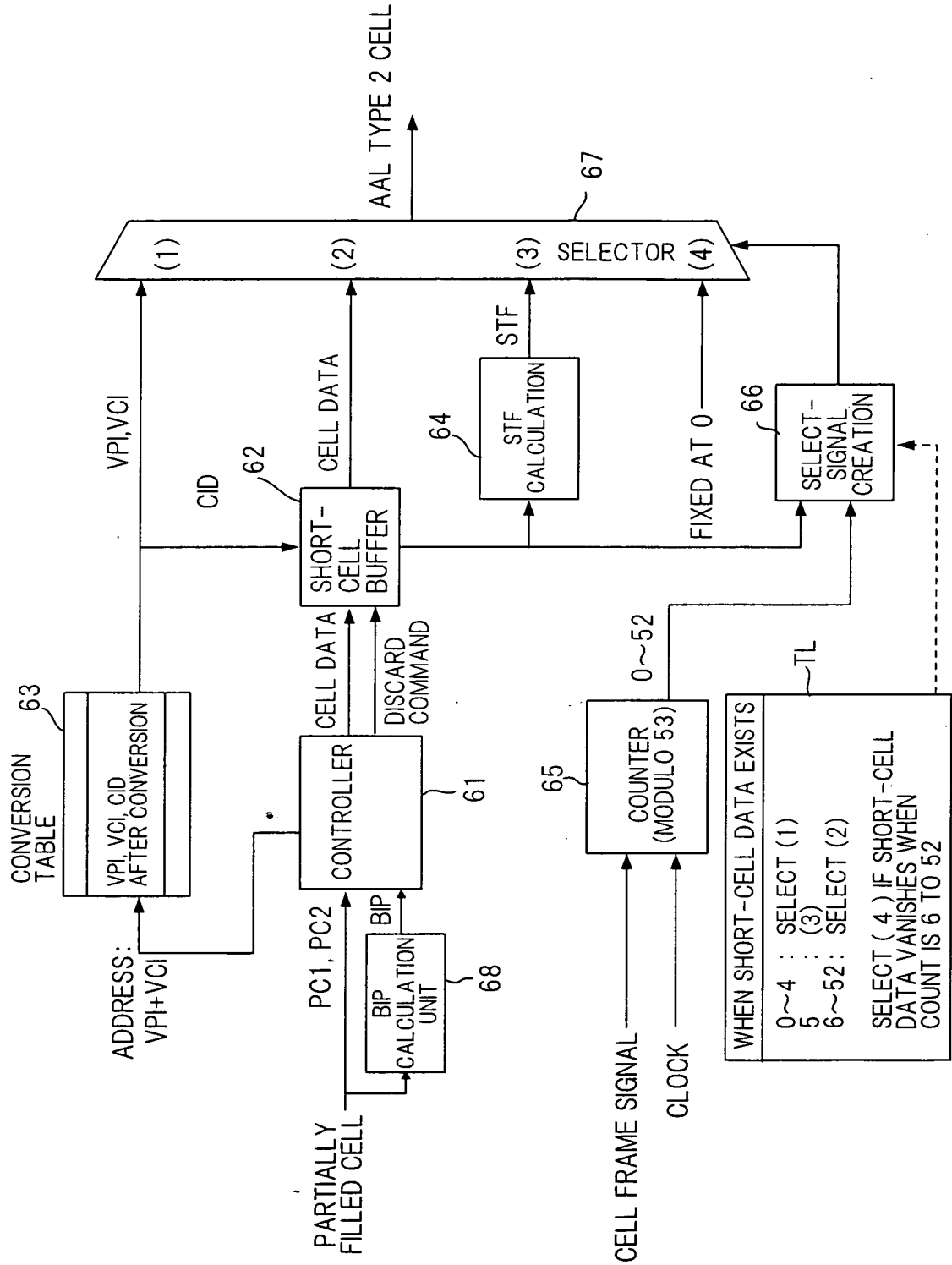
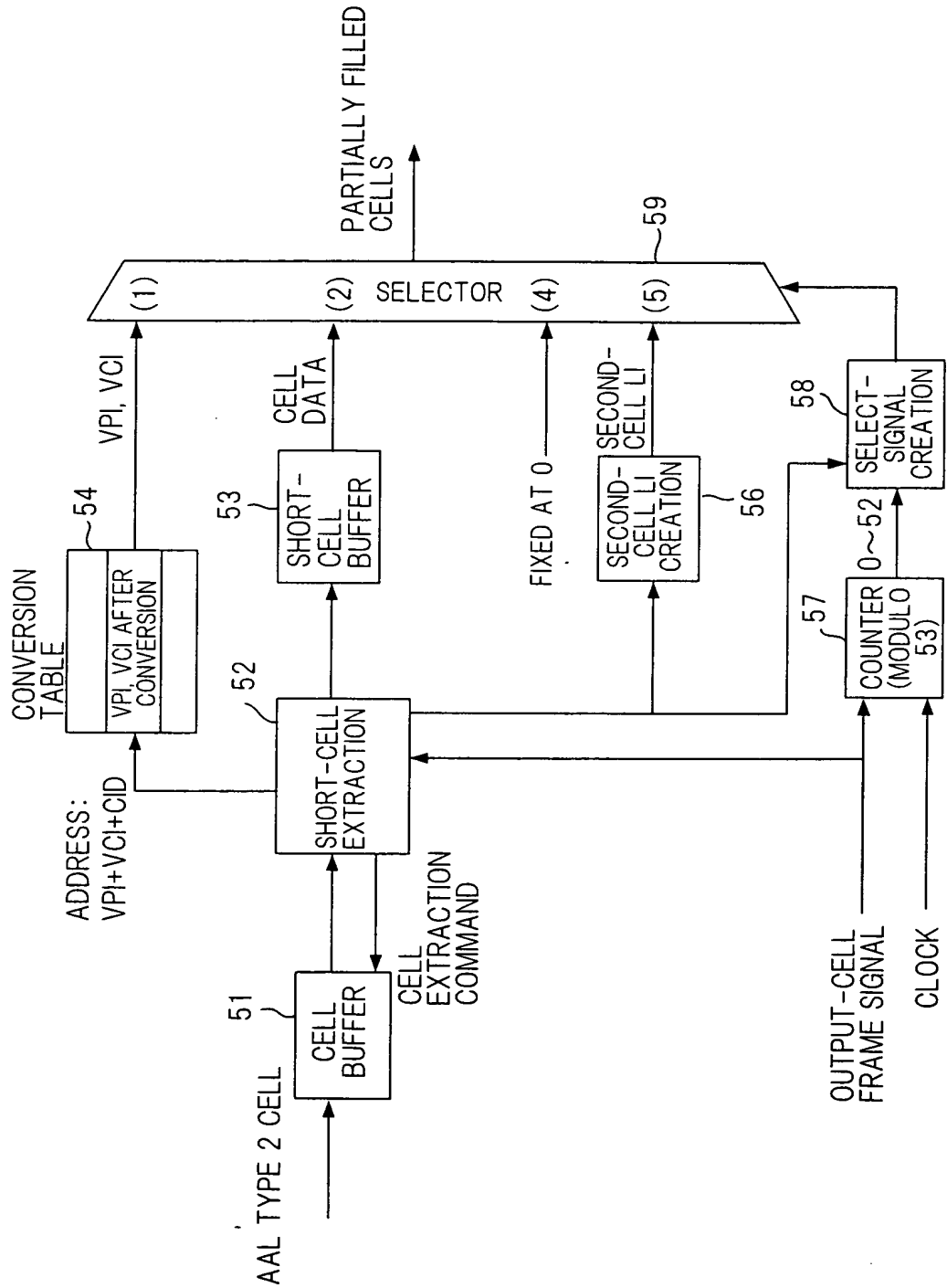


FIG. 37



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BY	CLASS	SUBCLASS
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**FIG. 38A**

WHEN  $LI < 45$  HOLDS

COUNT	SELECT SIGNAL
0~4	SELECT (1)
5~(LI+8)	SELECT (2)
(LI+9)~52	SELECT (4)

FIG. 39

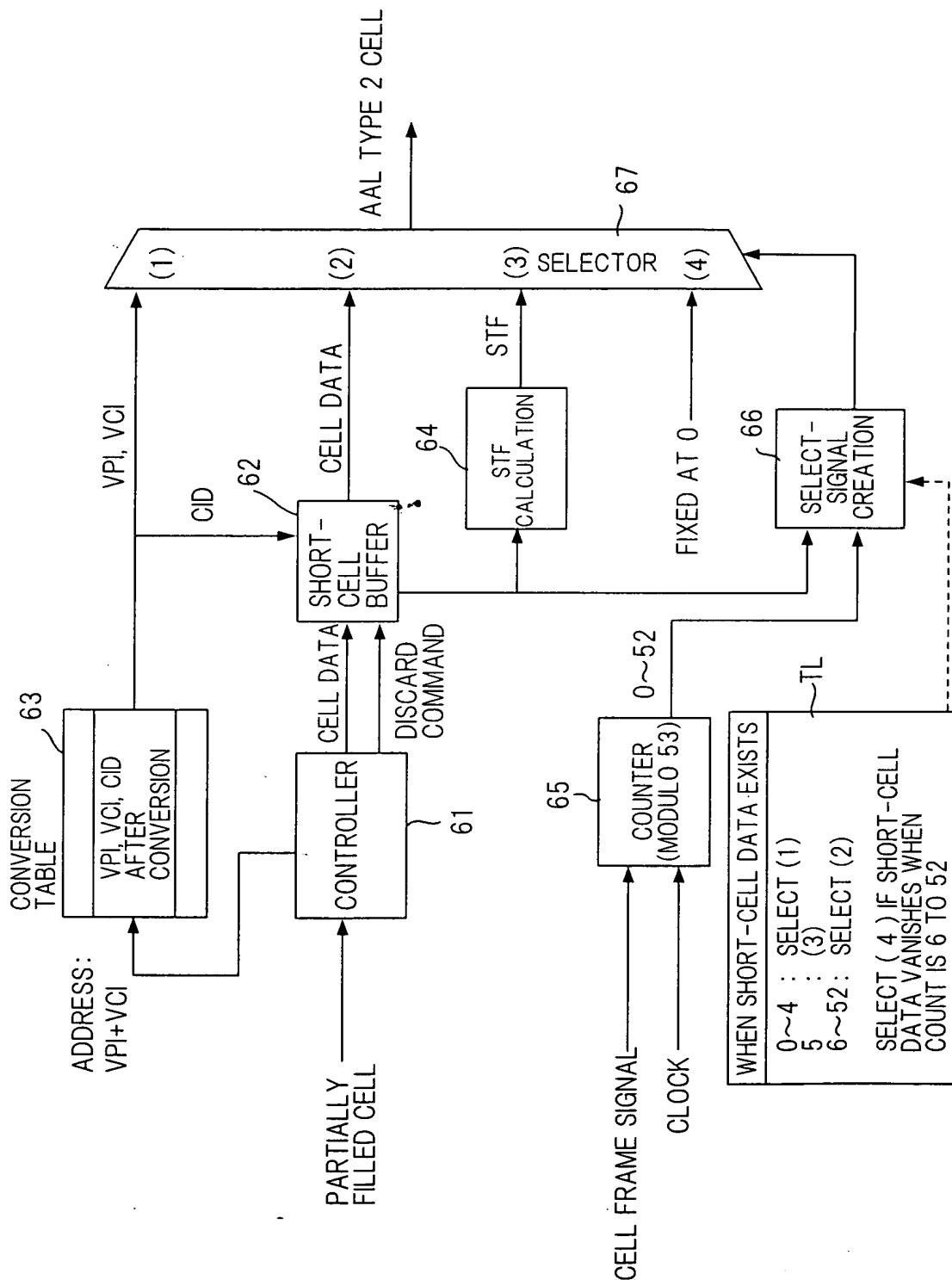
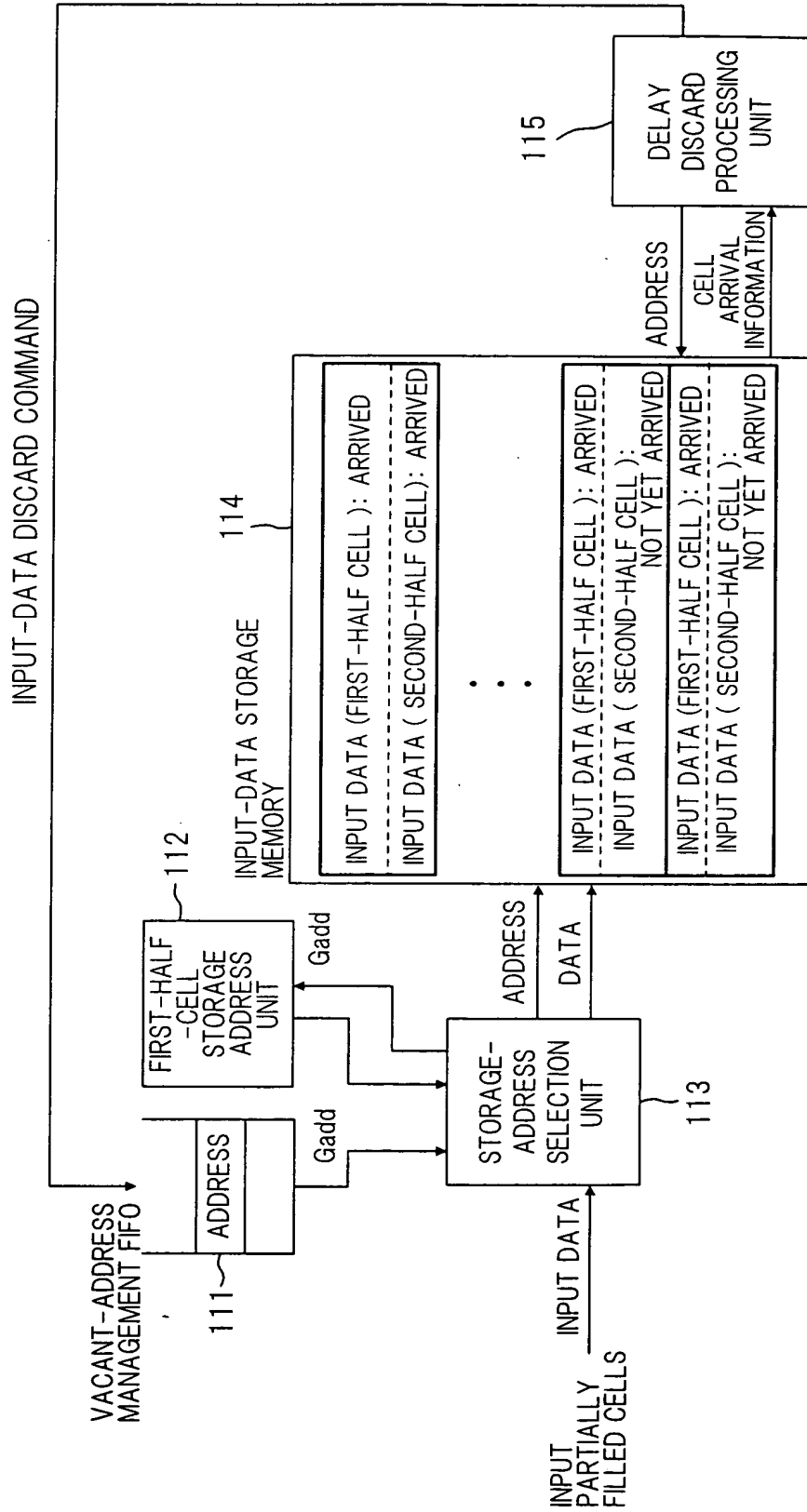


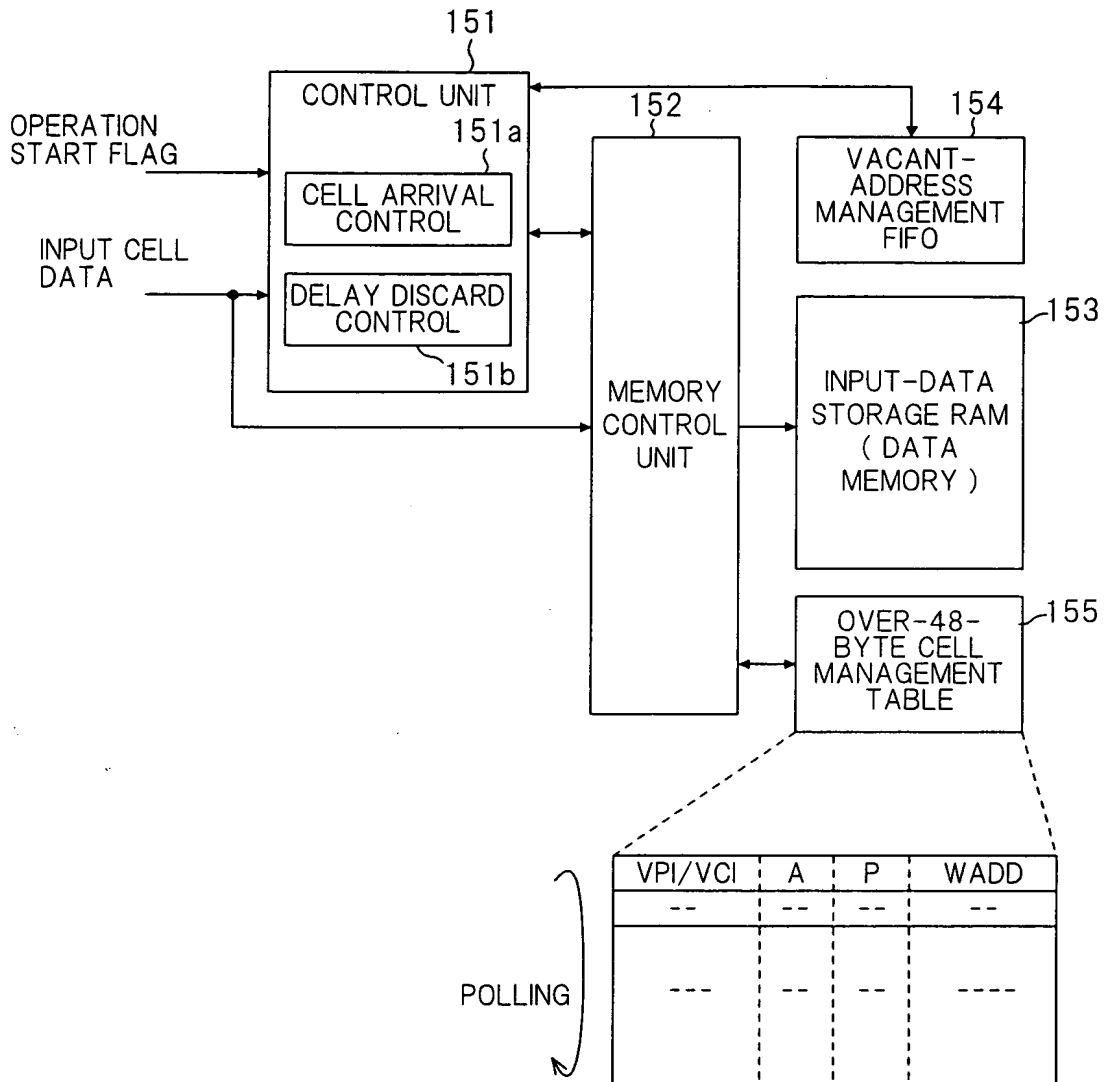
FIG. 40



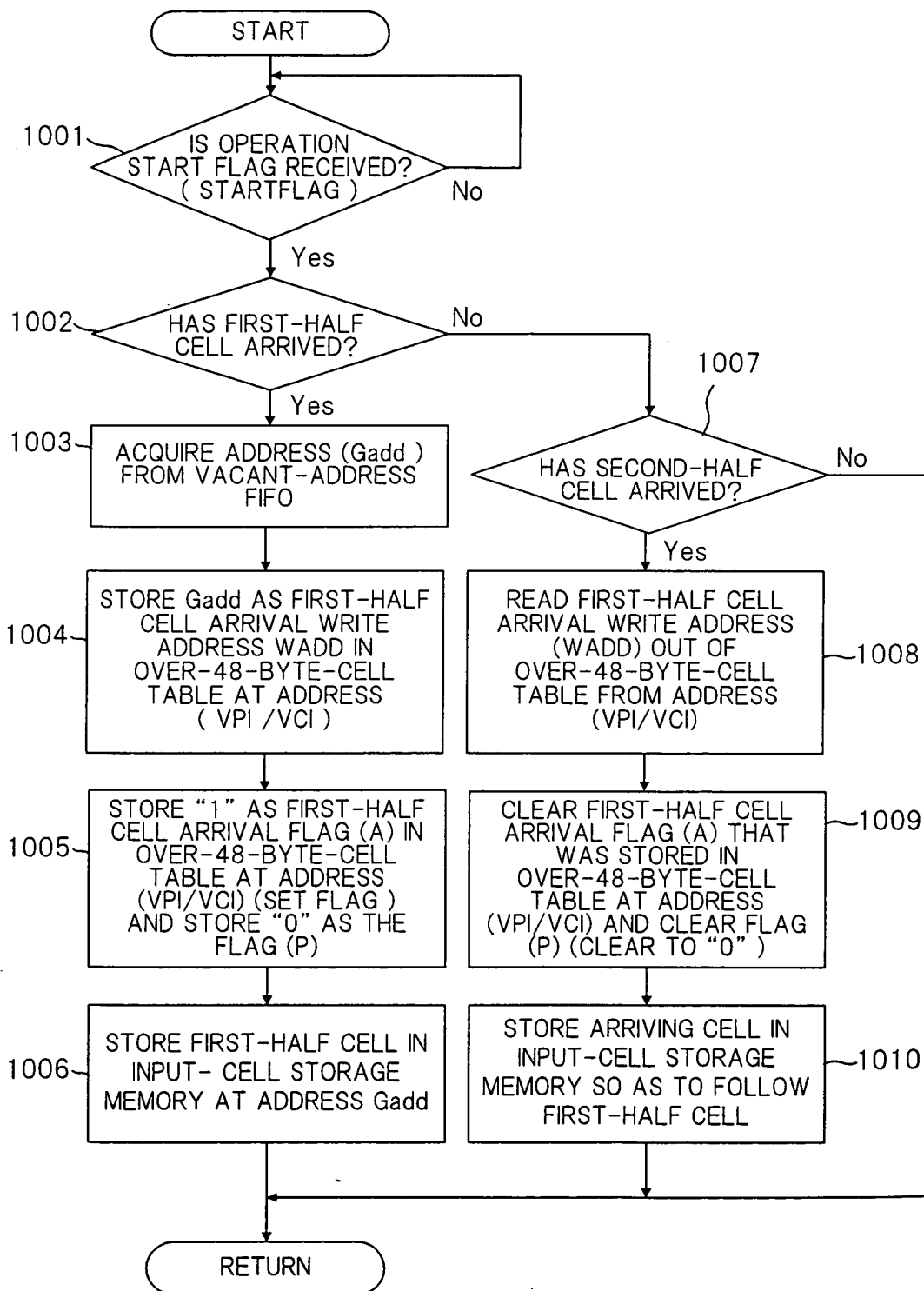


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FIG. 41

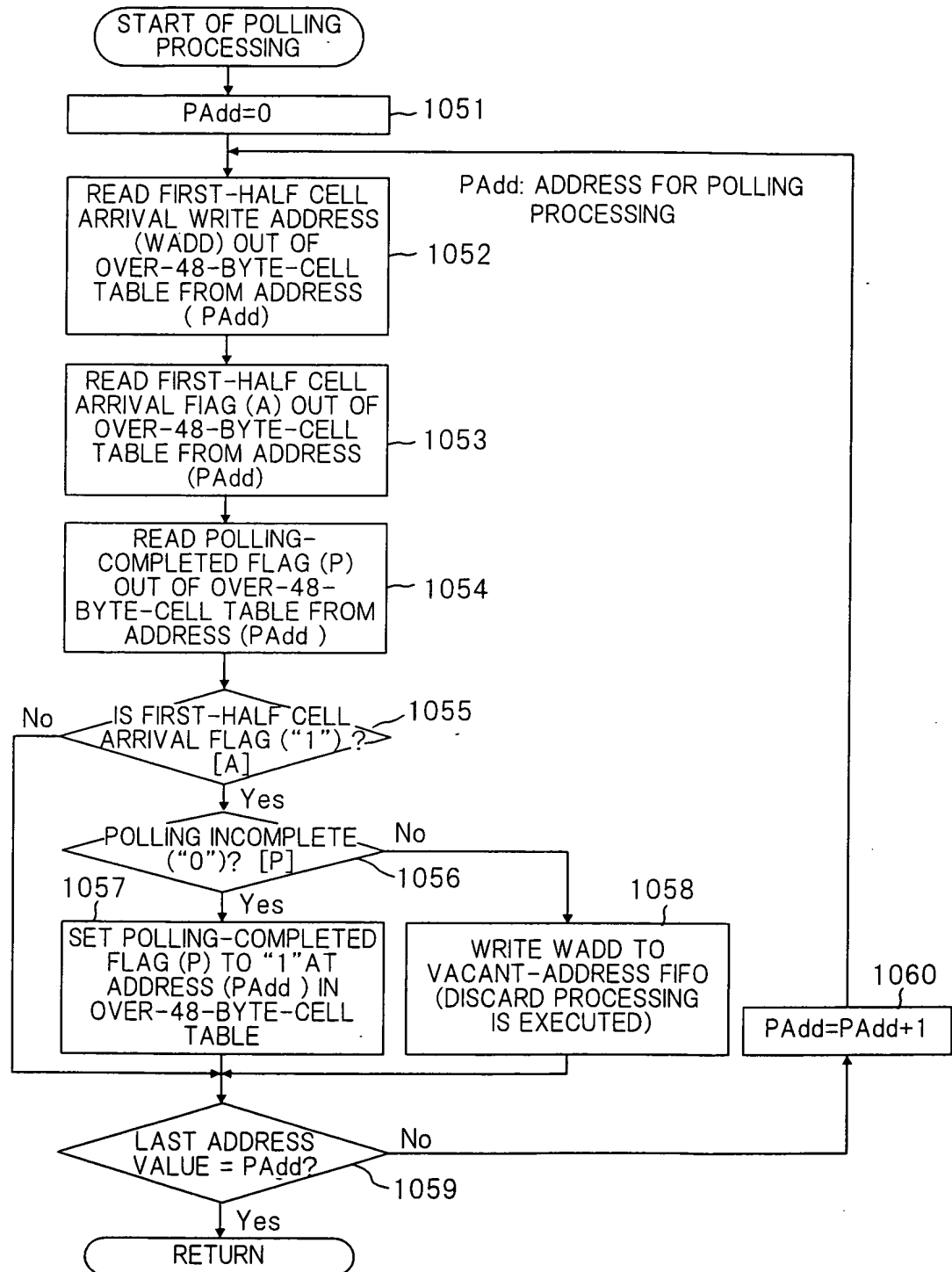


**FIG.42**



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**FIG. 43**



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FIG.44

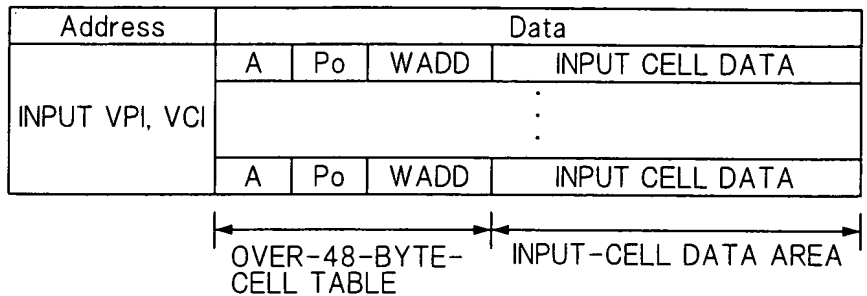
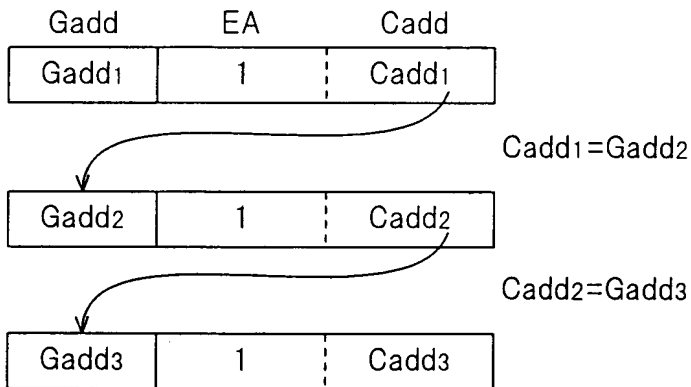
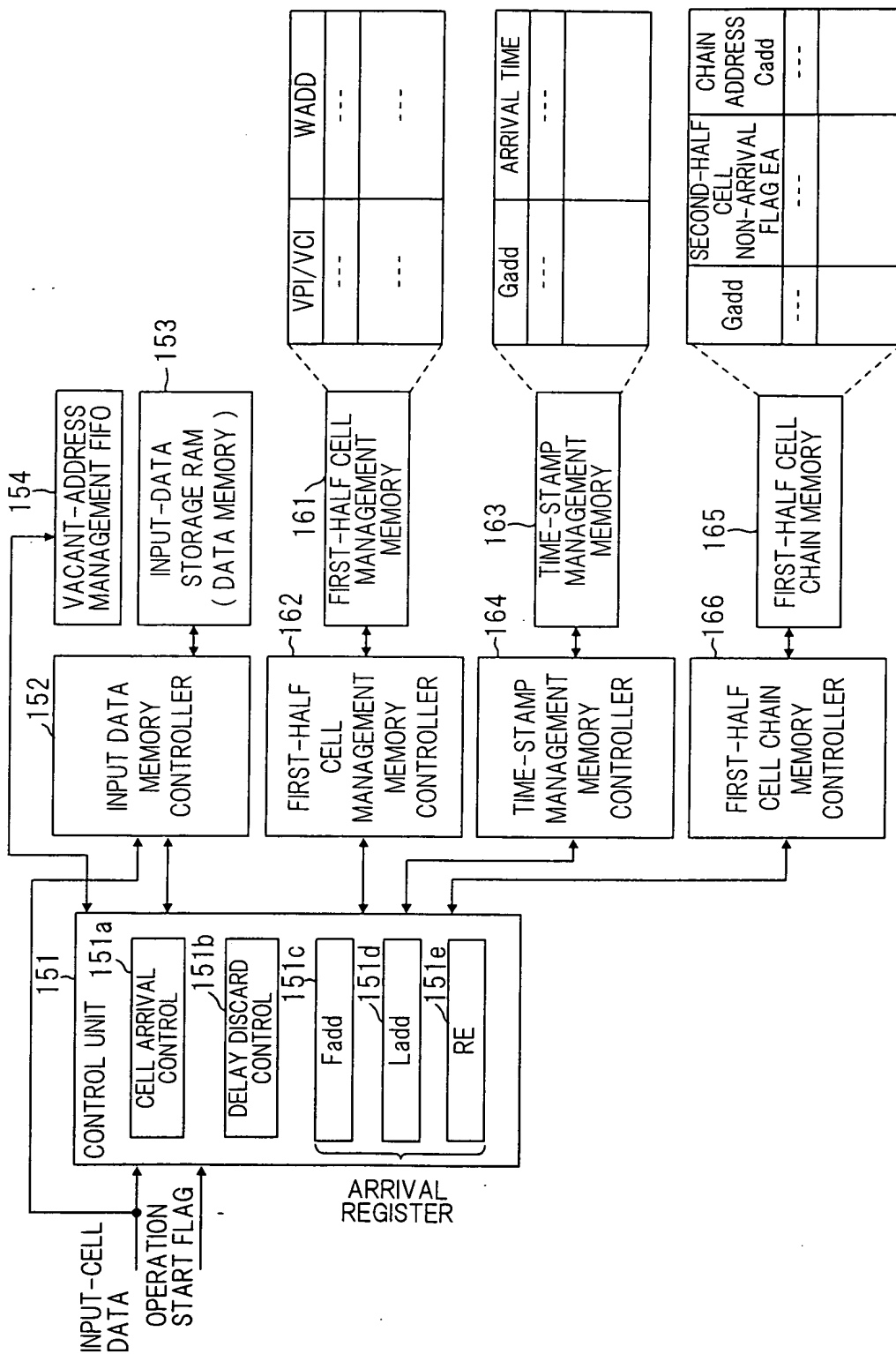


FIG.46



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FIG. 45





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*FIG. 48*

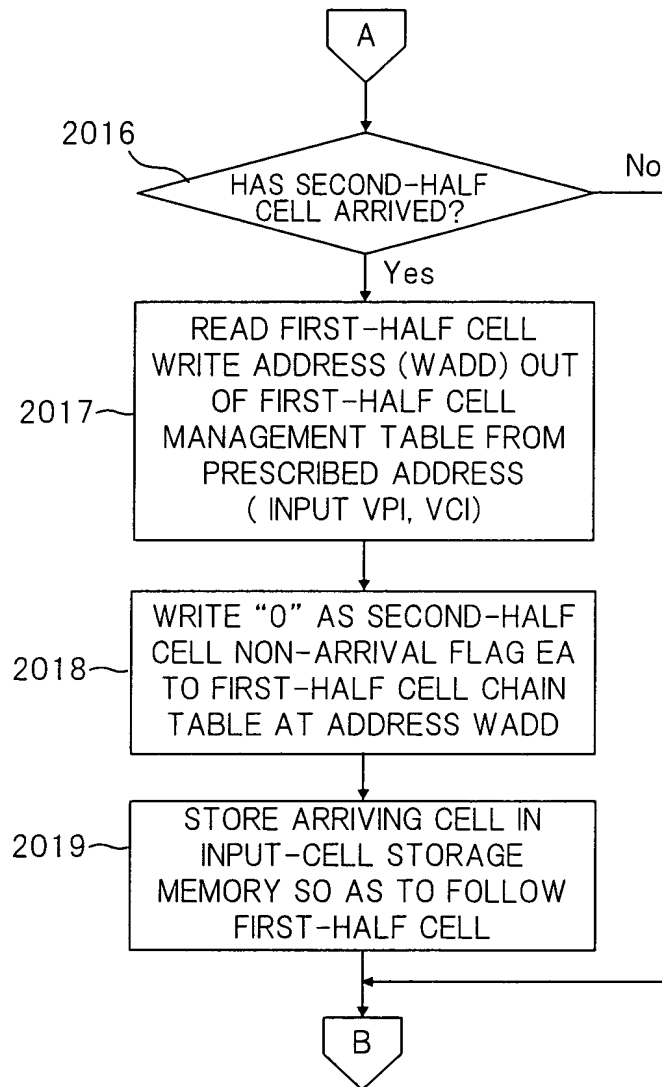


FIG. 49

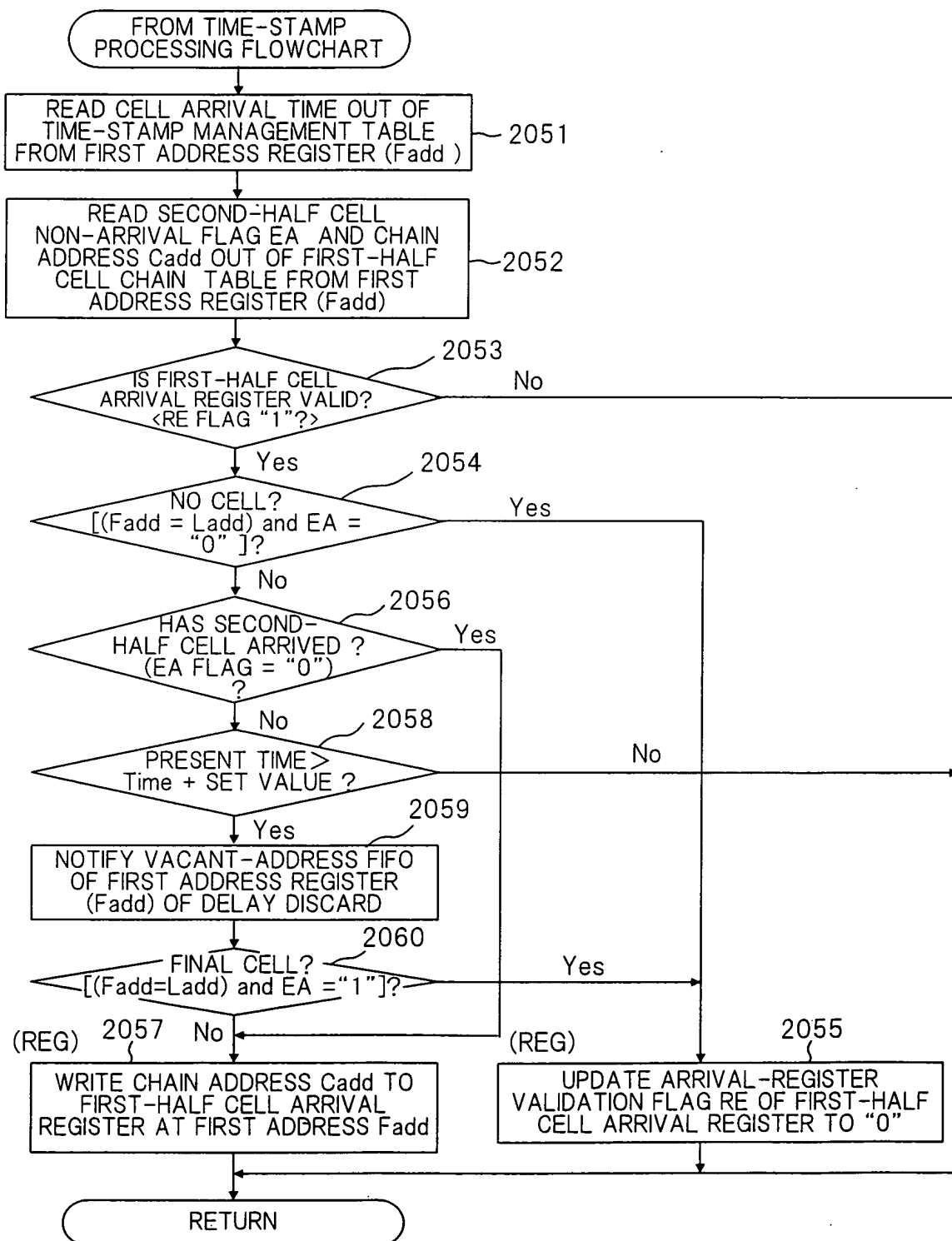
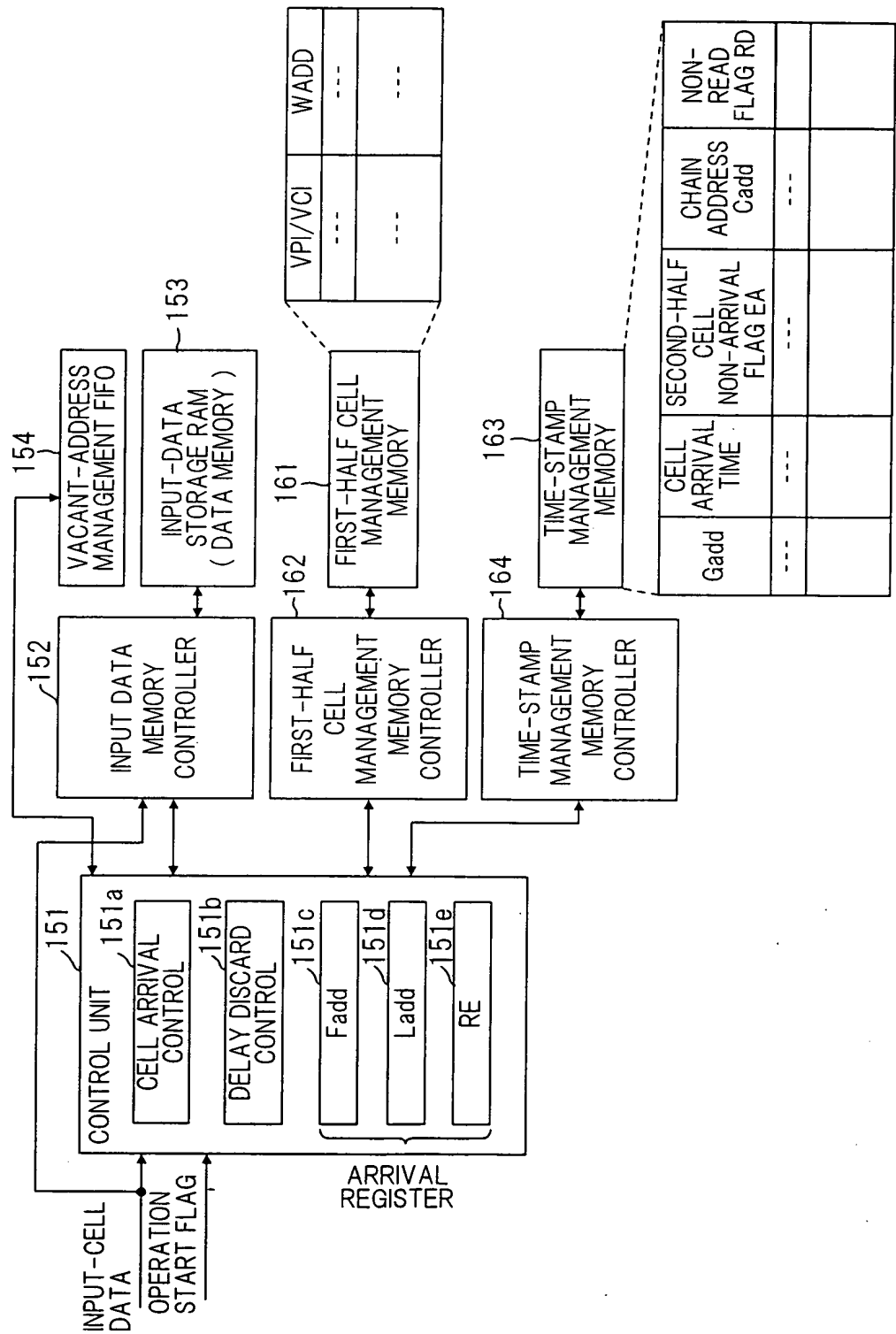


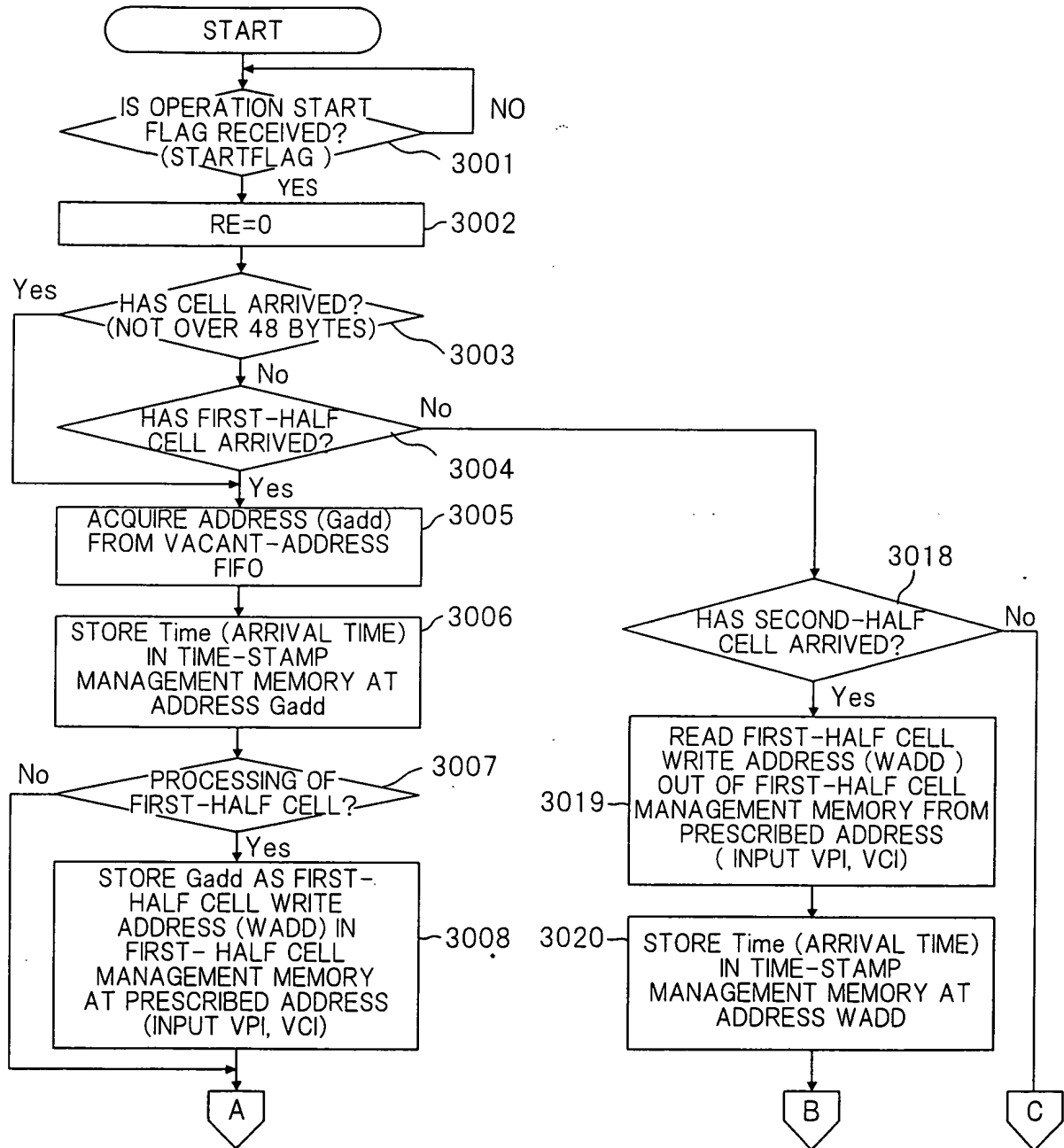


FIG. 50

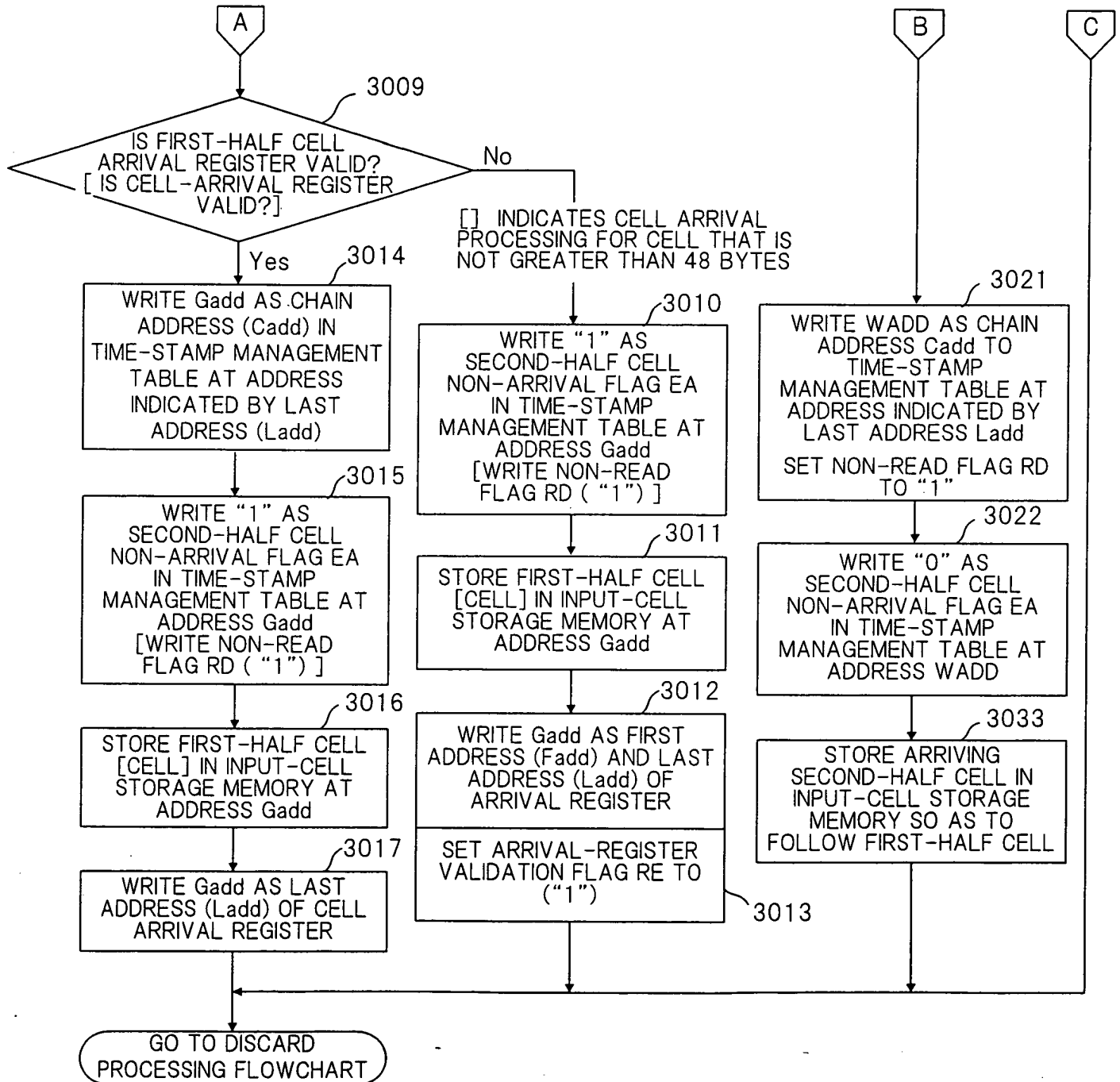


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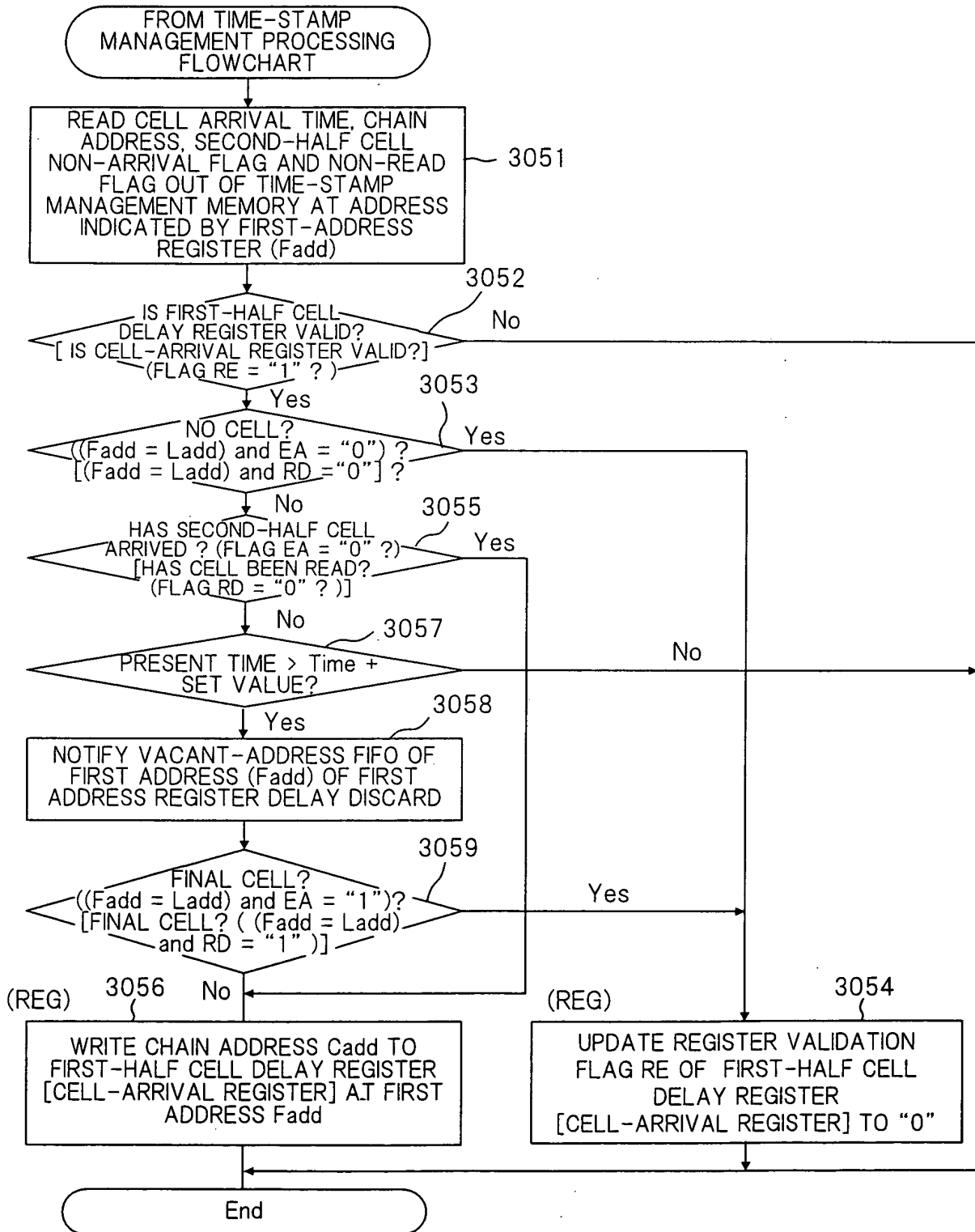
FIG. 51



**FIG.52**



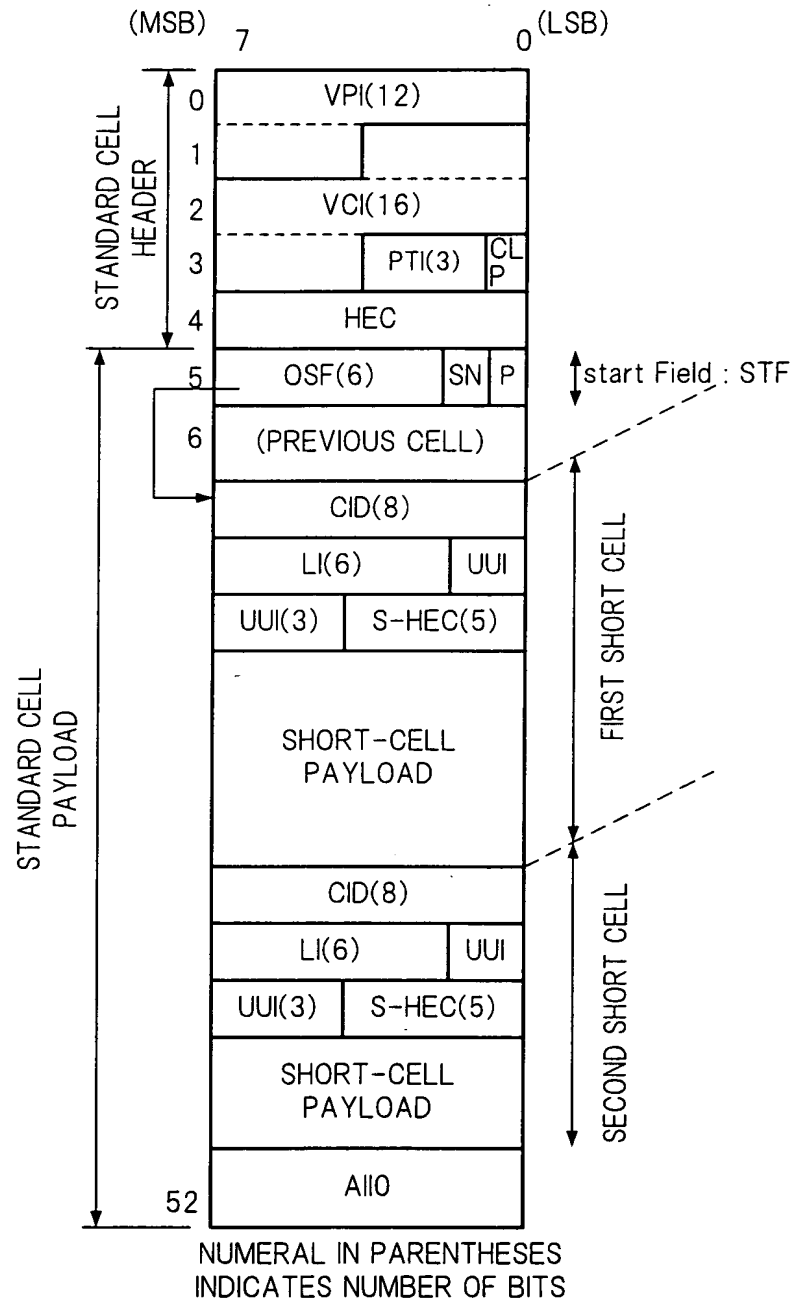
**FIG. 53**



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BY	CLASS	SUBCLASS
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# *FIG.54 PRIOR ART*



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	CLASS	SUBCLASS
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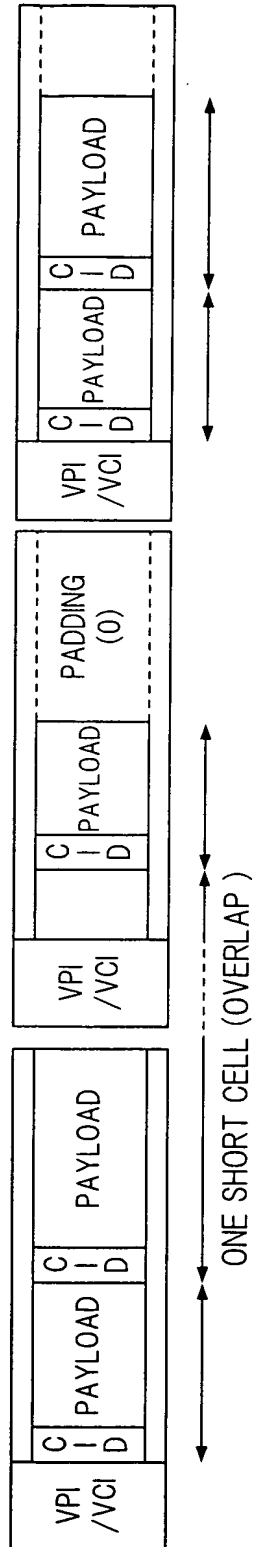
FIG.55 PRIOR ART

ABBREVIATION	NUMBER OF BITS	CONTENT	REMARKS
VPI	12	VIRTUAL PATH IDENTIFIER	
VCI	16	VIRTUAL CHANNEL IDENTIFIER	
PTI	3	PAYLOAD-TYPE IDENTIFIER	
CLP	1	CELL LOSS PRIORITY	
HEC	8	HEADER ERROR CONTROL	
OSF	6	OFFSET FIELD (POINTER TO START OF SHORT CELL) (0 - 47) OSF = 0: SHORT-CELL MAPPING IMMEDIATELY AFTER START FIELD OSF = 47: NO BREAK IN SHORT CELL WITHIN THIS CELL	OSF = 48 OR GREATER PROHIBITED
SN	1	1-BIT SEQUENCE NO. (0.1.0.1.)	MODULO 2
P	1	PARITY (ODD-NUMBER PARITY WITH RESPECT TO TOTAL OF SEVEN BITS OF StartPointer, SN)	
CID	8	SHORT-CELL CHANNEL IDENTIFIER	
LI	6	SHORT-CELL PAYLOAD LENGTH INDICATION (0 - 44) (0 INDICATES PAYLOAD LENGTH OF ONE BYTE)	
UUI	2	USER-USER IDENTIFICATION (HIGHER-ORDER SIDE)	
UUI	3	USER-USER IDENTIFICATION (LOWER-ORDER SIDE)	
S-HEC	5	SHORT-CELL HEADER ERROR CORRECTION (GENERATED POLYNOMIAL $X^5 + X^2 + 1$ )	

APPROVED	G. FIG.	
BY	CLASS	SUBCLASS
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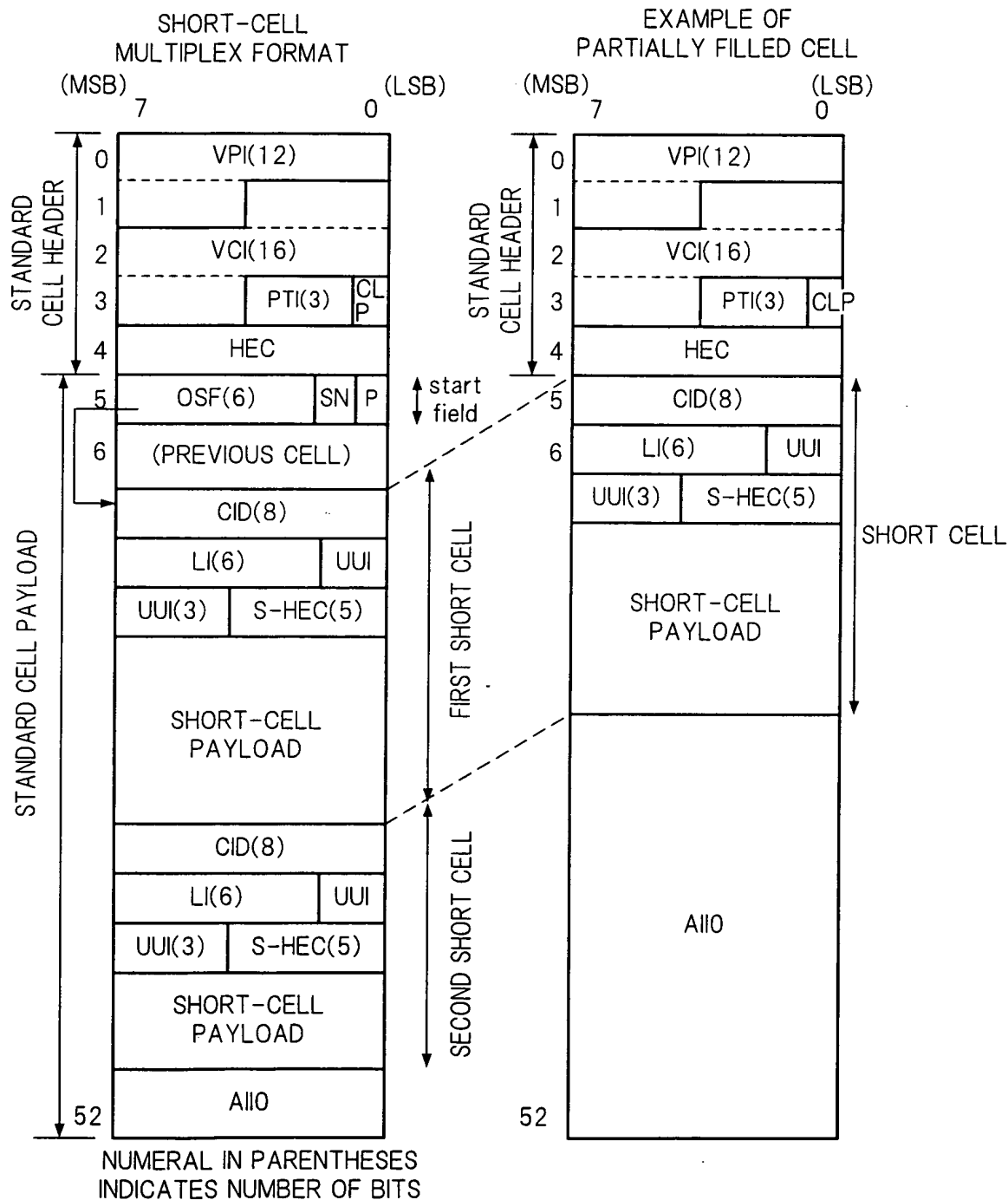
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FIG.56 PRIOR ART

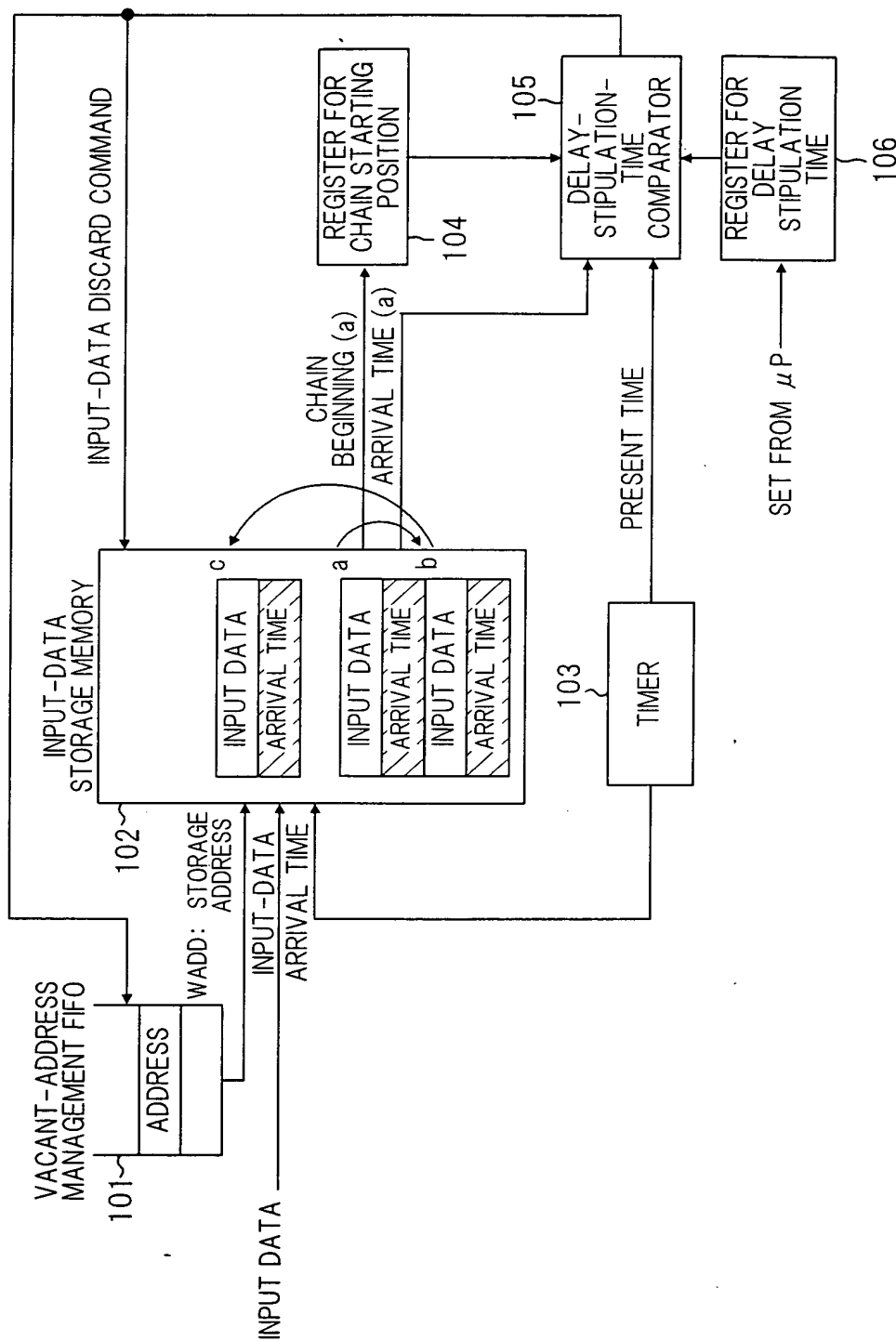


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# FIG.57 PRIOR ART

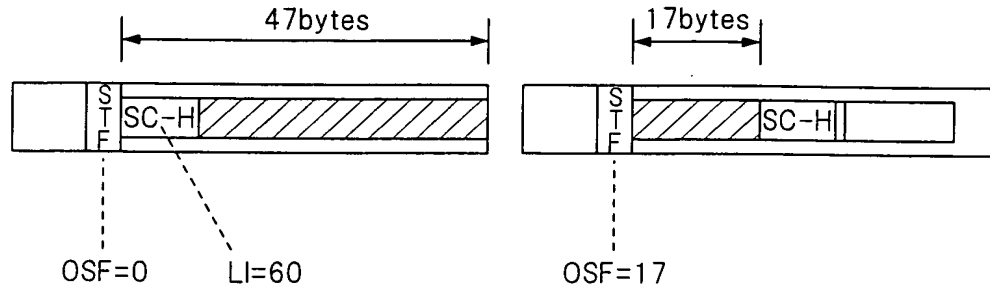




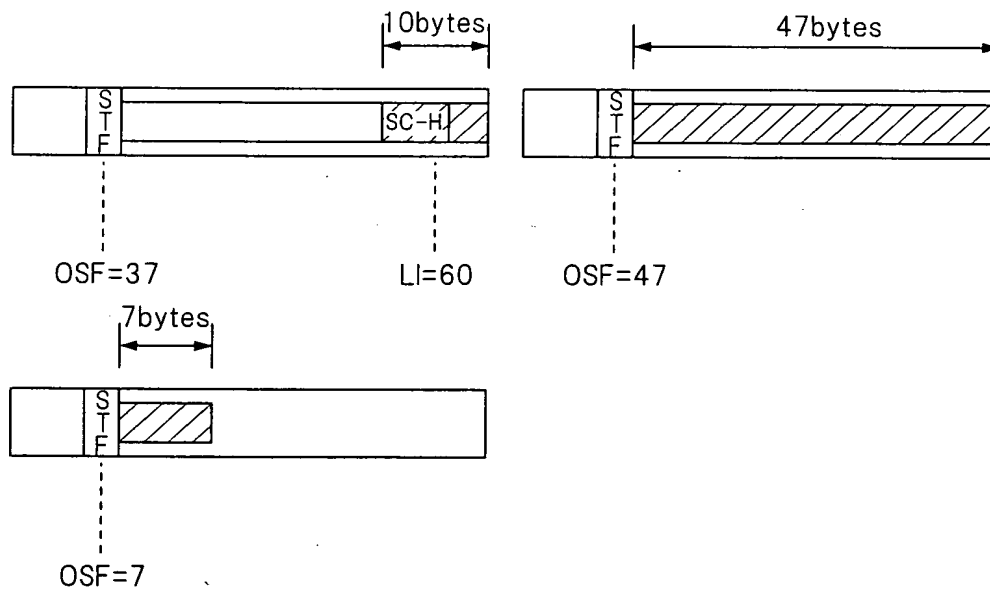


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*FIG. 59A*



*FIG. 59B*



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